

Fisheries And Wildlife (F_W)

F_W 1012: Introduction to Captive Wild Animal Management

(same as AN_SCI 1012). General introduction to housing, husbandry, behavior, genetics, nutrition, reproduction, animal health, and disease control of native and exotic species in zoological parks and other animal conservation facilities; emphasizes the role of captive animals in wildlife conservation. Graded on A-F basis only.

Credit Hours: 3

F_W 1100: Introductory Zoology with Laboratory

(same as BIO_SC 1100). Introduces important principles and concepts of zoology. Emphasizes cell biology; evolution; genetics; ecology; structure, function, development of the organism.

Credit Hours: 5

F_W 2500: Introduction to Genetics and Evolution for Conservation

Basic principles and processes of genetics and evolution and their importance for management and conservation. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: MATH 1100, F_W 1100 or BIO_SC 1500

Recommended: NAT_R 1070, CHEM 1320

F_W 2600: Ornithology

Structure, identification, habits, importance of regional birds. Field work, lectures, lab.

Credit Hours: 5

Prerequisites: F_W 1100 or BIO_SC 1500. Restricted to SNR Students only during early registration

F_W 2700: Ichthyology

A broad introduction to the biology and ecology of fishes. Emphasis will be placed on understanding the adaptations fishes exhibit to aspects of their environment.

Credit Hours: 4

Prerequisites: F_W 1100 or BIO_SC 1500. Restricted to SNR students only during early registration

F_W 2900: Principles of Wildlife Management

Expose students to the principles of wildlife management with emphasis on current issues faced by wildlife researchers and managers in the field. Graded on A-F basis only.

Credit Hours: 4

Recommended: NAT_R 1070 and one other course in biological or environmental science; sophomore standing or higher

F_W 3085: Problems in Fisheries and Wildlife

Individual problems studies to supplement regularly organized undergraduate courses in Fisheries and Wildlife. Proposal for problems study must be arranged by student and supervising faculty member prior to registration.

Credit Hour: 1-99

Prerequisites: consent of supervising faculty member

F_W 3600: Introduction to Conservation Biology

Introduction to principles of conservation biology. Application of ecological concepts and conservation biology principles to management of endangered species, biodiversity and threatened ecosystems.

Credit Hours: 3

Prerequisites: BIO_SC 3650 or BIO_SC 3400

F_W 3660: Mammalogy

Taxonomy, distribution, structure, habits, importance of mammals; emphasizes those of central United States.

Credit Hours: 4

Prerequisites: F_W 1100 or BIO_SC 1500. Restricted to SNR students during early registration

F_W 3700: Animal Behavior

Behavior allows animals to react promptly to environmental changes, and is how they interact with others and their surroundings. Because behaving is central to an animal's life, knowing about behavior is fundamental to understanding animal ecology and to conservation efforts. Graded on A-F basis only.

Credit Hours: 3

Recommended: F_W 1100

F_W 3900: Ecology of Fishes

This course considers fishes' interactions with their environments in relation to survival, growth and population processes. The course is for mid- to upper-level undergraduates interested in fisheries science, management and fish conservation. May be repeated once for credit. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: BIO_SC 1500 or F_W 1100; sophomore standing

Recommended: STAT 2500

F_W 4002: Topics in Fisheries and Wildlife - Biological

Organized study of selected topics intended primarily for senior-level students in Fisheries and Wildlife Sciences.

Credit Hour: 1-99

F_W 4200: Urban Wildlife Conservation

(cross-leveled with F_W 7200). Reviewing the theory and practice of applying ecological concepts to the management of wildlife species in urban areas.

Credit Hours: 3

Prerequisites: BIO_SC 3650 or FOREST 4320

F_W 4200W: Urban Wildlife Conservation - Writing Intensive

(cross-leveled with F_W 7200). Reviewing the theory and practice of applying ecological concepts to the management of wildlife species in urban areas.

Credit Hours: 3

Prerequisites: BIO_SC 3650 or FOREST 4320

F_W 4220: Human Dimensions of Fish and Wildlife Conservation

Overview of human dimensions approaches and methods as they are applied to issues in fish and wildlife conservation.

Credit Hours: 3

Recommended: One 3000-level or above professional Fisheries and Wildlife management or techniques course

F_W 4300: Fisheries Management

(cross-leveled with F_W 7300). Introduction to the scientific principles and techniques of fishery management. Integrates ecological principles with social, economic and legal considerations.

Credit Hours: 3

Prerequisites: BIO_SC 3650/FOREST 4320

Recommended: STAT 2500

F_W 4400: Fisheries Techniques

This course will expose students to important fisheries sampling and analysis techniques. A diverse approach to teaching will be used that involves field experiences, lectures, case studies, problem sets, laboratory work, group work and group discussions. Upon completion of the course, students should possess a solid understanding of fisheries sampling and analysis techniques and will obtain many of the skills and abilities needed to effectively manage fish and their habitats. Graded on A-F basis only.

Credit Hours: 4

Prerequisites: F_W 2700 or F_W 4300

Recommended: BIO_SC 3650 or FOREST 4320; STAT 2500 or NAT_R 4110

F_W 4400W: Fisheries Techniques - Writing Intensive

This course will expose students to important fisheries sampling and analysis techniques. A diverse approach to teaching will be used that involves field experiences, lectures, case studies, problem sets, laboratory work, group work and group discussions. Upon completion of the course, students should possess a solid understanding of fisheries sampling and analysis techniques and will obtain many of the skills and abilities needed to effectively manage fish and their habitats. Graded on A-F basis only.

Credit Hours: 4

Prerequisites: F_W 2700 or F_W 4300

Recommended: F_W 2700 or F_W 4300

F_W 4500: Animal Population Dynamics and Management

(cross-leveled with F_W 7500). Quantitative modeling approach to examining principles and analysis techniques of fish and wildlife population dynamics. Emphasis on approaches useful in the management of exploited species.

Credit Hours: 3

Prerequisites: MATH 1400; STAT 2500 or NAT_R 4110; BIO_SC 3650 or FOREST 4320

F_W 4600: Ecosystem Management

(cross-leveled with F_W 7600). Explores the development and implementation of large-scale approaches to restoring and maintaining ecosystems for sustainability. Incorporates ecological, socio-economic, and institutional factors that influence natural management agencies. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: BIO_SC 3650 or FOREST 4320

F_W 4600W: Ecosystem Management - Writing Intensive

Explores the development and implementation of large-scale approaches to restoring and maintaining ecosystems for sustainability. Incorporates ecological, socio-economic, and institutional factors that influence natural management agencies. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: BIO_SC 3650

F_W 4650: Natural Resource Planning and Management

Students will be exposed to various natural resource planning tools. Student teams will develop natural resource management plans with

strategic and operational components for current conservation issues in Missouri. Plans will be critiqued by peers and outside professionals. Graded on A-F basis only.

Credit Hours: 4

Prerequisites: FOREST 4320 or BIO_SC 3650 and senior standing

F_W 4700: Wildlife Ecology Methods

(cross-leveled with F_W 7700). Techniques for conducting wildlife research. Graded on A-F basis only.

Credit Hours: 4

Prerequisites: BIO_SC 3650 or FOREST 4320; STAT 2500 or NAT_R 4110

Recommended: F_W 2900

F_W 4700W: WILDLIFE METHODS - Writing Intensive

(cross-leveled with F_W 7700). Techniques for conducting wildlife research. Graded on A-F basis only.

Credit Hours: 4

Prerequisites: BIO_SC 3650 and STAT 2500

Recommended: F_W 2900, NAT_R 4110

F_W 4800: Environmental Toxicology

(cross-leveled with F_W 7800). Introduction to classes of chemicals, tools, methods, and approaches used in environmental toxicology. Emphasizes fundamentals of toxicology, dose-response relationships, evaluation of contaminant issues, strategies, and exposure analysis/toxicity assessment strategies in a risk assessment.

Credit Hours: 3

Prerequisites: CHEM 1320

Recommended: Junior standing

F_W 4810: Wildlife Disease Ecology

(cross-leveled with F_W 7810). An introduction to the ecology of wildlife diseases. Topics include the definition of a disease, how to measure diseases, impacts on individuals and populations, and the role of disease in wildlife management and conservation.

Credit Hours: 3

Prerequisites: BIO_SC 3650

F_W 4880: Waterfowl Ecology and Management

(cross-leveled with F_W 7880). Ecology and management of North American waterfowl and their habitats. Laboratory exercises focus on identification, life histories, sex and age determination, and survey methods. Lectures cover taxonomy, ecology, behavior, population dynamics, harvest management, and habitat management and conservation. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: F_W 2600; BIO_SC 3650; instructor's consent

F_W 4910: Senior Seminar in Captive Wild Animal Management

(same as AN_SCI 4910). Investigates key issues in captive wild animal management, focusing on the role of animal caretakers in addressing the issues. Students are required to formulate informed opinions regarding these topics and communicate effectively about the subject matter. Graded on A-F basis only.

Credit Hour: 1

Prerequisites: AN_SCI 1012 or F_W 1012; junior or senior standing

F_W 4945: Experiential Learning in Industry Internship in Fisheries and Wildlife

Learning experience combining observation, application, and reflection in a discipline-based industry internship. Course appears on transcript for zero credit and does not count toward full-time enrollment. No tuition or fees are charged. Graded on S/U basis only.

Credit Hours: 0

Prerequisites: instructor's consent

F_W 4950: Undergraduate Research in Fisheries and Wildlife

Individually directed field or laboratory research for students under faculty supervision. Project must be arranged by student and faculty member prior to registration.

Credit Hour: 1-99

Prerequisites: consent of supervising faculty member

F_W 4955: Experiential Learning in Research in Fisheries and Wildlife

A supervised learning experience contributing to faculty research. Course appears on transcript for zero credit and does not count toward full-time enrollment. No tuition or fees are charged. Graded on S/U basis only.

Credit Hours: 0

Prerequisites: instructor's consent

F_W 7002: Graduate Topics in Fisheries and Wildlife

Organized study of selected topics intended primarily for graduate students in Fisheries and Wildlife Sciences. Graded on A-F basis only.

Credit Hour: 1-99

F_W 7200: Urban Wildlife Conservation

(cross-leveled with F_W 4200). Reviewing the theory and practice of applying ecological concepts to the management of wildlife species in urban areas.

Credit Hours: 3

Prerequisites: BIO_SC 3650 or FOREST 4320

F_W 7220: Human Dimensions of Fish and Wildlife Conservation

Overview of human dimensions approaches and methods as they are applied to issues in fish and wildlife conservation.

Credit Hours: 3

Prerequisites: One 3000-level or above professional management or techniques course or instructor consent

F_W 7300: Fisheries Management

(cross-leveled with F_W 4300). Introduction to the scientific principles and techniques of fishery management. Integrates ecological principles with social, economic and legal considerations.

Credit Hours: 3

Prerequisites: BIO_SC 3650/FOREST 4320

Recommended: STAT 2500

F_W 7500: Animal Population Dynamics and Management

(cross-leveled with F_W 4500). Quantitative modeling approach to examining principles and analysis techniques of fish and wildlife population dynamics. Emphasis on approaches useful in the management of exploited species. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: MATH 1400; STAT 2500 or NAT_R 4110; BIO_SC 3650 or FOREST 4320

F_W 7600: Ecosystem Management

(cross-leveled with F_W 4600). Explores the development and implementation of large-scale approaches to restoring and maintaining ecosystems for sustainability. Incorporates ecological, social-economic, and institutional factors that influence natural resource management agencies. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: BIO_SC 3650 or FOREST 4320

F_W 7700: Wildlife Ecology Methods

(cross-leveled with F_W 4700). Techniques for conducting wildlife research. Graded on an A-F basis only.

Credit Hours: 4

Recommended: Ecology and basic statistics course

F_W 7800: Environmental Toxicology

(cross-leveled with F_W 4800). Introduction to classes of chemicals, tools, methods, and approaches used in environmental toxicology. Emphasizes fundamentals of toxicology, dose-response relationships, evaluation of contaminant issues, strategies, and exposure analysis/toxicity assessment strategies in a risk assessment.

Credit Hours: 3

Prerequisites: CHEM 1320

F_W 7810: Wildlife Disease Ecology

(cross-leveled with F_W 4810). An introduction to the ecology of wildlife diseases. Topics include the definition of a disease, how to measure diseases, impacts on individuals and populations, and the role of disease in wildlife management and conservation.

Credit Hours: 3

Prerequisites: instructor's consent

F_W 7880: Waterfowl Ecology and Management

(cross-leveled with F_W 4880). Ecology and Management of North American waterfowl and their habitats. Laboratory exercises focuses on identification, life histories, sex and age determination, and survey methods. Lectures cover taxonomy, ecology, behavior, population dynamics, harvest management, and habitat management and conservation. Graded on A-F basis only.

Credit Hours: 3

Prerequisites: F_W 2600; BIO_SC 3650; instructor's consent

F_W 8001: Topics in Fisheries and Wildlife

Organized study of selected topics. Subjects and credit may vary from semester to semester.

Credit Hour: 1-99

Prerequisites: instructor's consent

F_W 8050: Non-Thesis Research in Fisheries and Wildlife

Independent research not leading to a thesis.

Credit Hour: 1-99

F_W 8085: Graduate Problems in Fisheries and Wildlife

Individualized problems studies to supplement regularly organized graduate courses in Fisheries and Wildlife.

Credit Hour: 1-5

Prerequisites: consent of supervising faculty member

F_W 8087: Masters Seminar in Fisheries and Wildlife

Discussions of current developments in forestry, fisheries and wildlife, and critical study of research programs.

Credit Hour: 1

F_W 8090: Masters Thesis Research in Fisheries and Wildlife

Research leading to a thesis or dissertation. Graded on a S/U basis only.

Credit Hour: 1-99

F_W 8300: Professional Development and Communications

Intended to foster professional growth and development of graduate students. The course will present a rigorous introduction to professionalism, ethics, career development, and professional communications skills and techniques. Graded on A-F basis only.

Credit Hour: 1-3

F_W 8460: Wetland Ecology

A survey of the wetlands of North America; emphasis on nutrient dynamics, habitat structure, management, legislation and regulations, and man's impacts.

Credit Hours: 3

Prerequisites: NAT_R 4100, BIO_SC 3650 and instructor's consent

F_W 8510: Ecology, Conservation, and Environmental Justice

(same as BL_STU 8510). The goal of this course is to introduce graduate students in natural resource management and conservation biology to the ecological and management concepts that underlie environmental justice issues, and to explain how broader environmental justice concepts are relevant to natural resource and conservation fields. Graded on A-F basis only. Prerequisites: one undergraduate course from the following list of disciplines: ecology, natural resource management, conservation biology, sociology or equivalent.

Credit Hours: 2

F_W 8520: Stream Ecology

Ecological principles applied to flowing waters. Emphasis on ecological processes within algal, invertebrate and fish communities. The influence of geomorphic processes, hydrologic principles and physical-chemical factors on the biota.

Credit Hours: 3

F_W 8530: Quantitative Ecology

Methods to assess space use patterns, animal abundance and population status are drawn into quantitative framework for making ecological inferences. Practical application and limitations of techniques are emphasized through analysis and interpretation of field and simulated data.

Credit Hours: 4

Recommended: F_W 4500 or equivalent

F_W 9001: Selected Topics in Fisheries and Wildlife Sciences for Doctoral Students

Organized study of selected topics for PhD students in Fisheries and Wildlife Sciences. Subjects and credits may vary from semester to semester. Graded on A-F basis only.

Credit Hour: 1-4

Prerequisites: PhD standing and instructor consent

F_W 9087: PhD Seminar in Fisheries and Wildlife

Discussions of current developments in forestry, fisheries and wildlife, and critical study of research programs.

Credit Hour: 1

F_W 9090: Ph. D. Dissertation Research in Fisheries and Wildlife

Research leading to a thesis or dissertation. Graded on a S/U basis only.

Credit Hour: 1-99
