

BIOLOGICAL SCIENCES

BACHELOR OF SCIENCE IN FISHERIES & WILDLIFE SCIENCES

The fisheries and wildlife science program is a professional program designed to prepare qualified field and research biologists, as well as to provide a sound foundation for those students who intend to pursue graduate studies in wildlife biology, fisheries biology or field ecology. Through selection of elective courses, graduates are required to meet certification requirements of The Wildlife Society or the American Fisheries Society.

Field biologists are employed by various state and federal agencies concerned with natural resources management including the Arkansas Game and Fish Commission, U.S. Fish and Wildlife Service, U.S. Forest Service, Arkansas Department of Environmental Quality, National Park Service, and the U.S. Army Corps of Engineers. Employment opportunities in the private sector are also available. Timber, mining, and utility companies hire field biologists for advice and management of industrial lands. Environmental consulting firms, commercial fish and game farms, and nature centers require qualified researchers, technicians, and educators.

Majors in fisheries and wildlife science must complete a minimum of 120 semester hours as specified in the following curriculum outline and no more than 12 hours of "D's" may be applied toward the degree. Note, this set of courses will also satisfy requirements for a minor in biology, but students should see their advisor to complete the associated degree audit form for the minor. Candidates for graduation are expected to complete a comprehensive series of practical and technical exams to assess mastery of program objectives.

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Curriculum

The matrix below is a sample plan for all coursework required for this program.

Freshman

Fall	Credits
ENGL 1013 Composition I ¹	3
SS 1XXX Social Science Courses ¹	3
MATH 1113 College Algebra	3
BIOL 1114 Principles of Biology	4
FW 1001 Orientation to Fisheries and Wildlife Science	1
Total Hours	14

Spring	Credits
ENGL 1023 Composition II ¹	3
SS 1XXX Social Science Courses ¹	3
CHEM 1113 A Survey of Chemistry and CHEM 1111 Survey of Chemistry Laboratory or CHEM 2124 General Chemistry I and CHEM 2120 General Chemistry I Lab	4
BIOL 2124 Principles of Zoology	4
Total Hours	14

Sophomore

Fall	Credits
FW 2013 Natural Resources Communications	3

Fall	Credits
BIOL 2134 Principles of Botany	4
CHEM 2204 Organic Physiological Chemistry	4
Statistics ² , FW 3084 Ichthyology ^{3F} or FW 3154 Mammalogy ^{3w}	3-4
Total Hours	14-15

Spring	Credits
USHG 1XXX U.S. History and Government ¹	3
FW 2833 Introduction to Geographic Information Systems/GEOG 2833 Introduction to Geographic Information Systems	3
SP 1XXX Speech Communication Courses ¹	3
FW 3114 Principles of Ecology	4
Statistics ² or FW 3144 Ornithology	3-4
Total Hours	16-17

Junior

Fall	Credits
BIOL 4044 Dendrology or electives ⁴	4
Statistics ² or Math ⁵	3
FW 4014 Forest Ecology and Management ^w , FW 4064 Wetland Ecology and Management ^{3w} or Electives ⁴	4
Electives ⁴	3
Total Hours	14

Spring	Credits
FAH 1XXX Fine Arts and Humanities Courses ¹	3
BIOL 3004 Plant Taxonomy ³ or Electives ⁴	4
FW 3053 Fisheries and Wildlife Administration	3
FW 4003 Principles of Wildlife Management	3
FW 4024 Limnology ^{3F} or Electives ⁴	4
Total Hours	17

Senior

Fall	Credits
FW 4043 Fisheries Techniques ^F or Electives ^w	3
FW 4103 Human Dimensions of Fisheries and Wildlife Management	3

Fall	Credits
Electives ⁴	9
Total Hours	15

Spring	Credits
FAH 1XXX Fine Arts and Humanities Courses ¹	3
FW 4001 Senior Seminar in Fisheries and Wildlife Biology	1
FW 4013 Wildlife Techniques ^W or Electives ^F	3
FW 4083 Principles of Fisheries Management	3
Electives ⁴	5
Total Hours	15

¹See appropriate alternatives or substitutions in "General Education Requirements". One of the social sciences must be ECON 2003 Principles of Macroeconomics.

²Statistics must be taken either fall or spring term.

³F and W superscripts designate courses required for certification in fisheries and wildlife, respectively. Students seeking wildlife certification must choose one course from each of the following course sequences: (1) FW 3154 Mammalogy or FW 3144 Ornithology (2) FW 4014 Forest Ecology and Management or FW 4064 Wetland Ecology and Management. Students seeking fisheries certification must choose FW 3084 Ichthyology and FW 4024 Limnology Meeting requirements for fisheries or wildlife certification is a requirement for graduation.

⁴Must include at least two courses from the biology group (BIOL 3174 Physiological Ecology, BIOL 3034 Genetics, BIOL 4064 Evolutionary Biology, BIOL 3064 Parasitology, AGPM 3104 Introduction to Entomology, BIOL 3184 Animal Behavior, BIOL 3004 Plant Taxonomy, BIOL 3033 Bioinformatics, BIOL 4043 Conservation Genetics, BIOL 4044 Dendrology, BIOL 4094 Coastal Ecology) one course from the physical science group elective (any physics course, AGSS 2014 Soils, GEOL 1014 Physical Geology), and three 3000-4000 level fisheries and wildlife elective courses. Sufficient additional electives to produce 120 total credit hours are required for graduation.

⁵Must include one of the following courses: FW 3173 Biostatistics, STAT 2304 Programming Languages for Data Science, STAT 3113 Regression Analysis, STAT 4153 Experimental Design and Analysis or Calculus.