WILDLIFE ECOLOGY, B.S.

REQUIREMENTS

UNIVERSITY GENERAL EDUCATION REQUIREMENTS

All undergraduate students at the University of Wisconsin–Madison are required to fulfill a minimum set of common university general education requirements to ensure that every graduate acquires the essential core of an undergraduate education. This core establishes a foundation for living a productive life, being a citizen of the world, appreciating aesthetic values, and engaging in lifelong learning in a continually changing world. Various schools and colleges will have requirements in addition to the requirements listed below. Consult your advisor for assistance, as needed. For additional information, see the university Undergraduate General Education Requirements (http://guide.wisc.edu/undergraduate/#requirementsforundergraduatestudytext) section of the *Guide*.

General Education

- Breadth—Humanities/Literature/Arts: 6 credits
- Breadth—Natural Science: 4 to 6 credits, consisting of one 4- or 5-credit course with a laboratory component; or two courses providing a total of 6 credits
- Breadth—Social Studies: 3 credits
- Communication Part A & Part B *
- Ethnic Studies *
- Quantitative Reasoning Part A & Part B *

* The mortarboard symbol appears before the title of any course that fulfills one of the Communication Part A or Part B, Ethnic Studies, or Quantitative Reasoning Part A or Part B requirements.

COLLEGE OF AGRICULTURAL AND LIFE SCIENCES REQUIREMENTS

In addition to the University General Education Requirements, all undergraduate students in CALS must satisfy a set of college and major requirements. Courses may not double count within university requirements (General Education and Breadth) or within college requirements (First-Year Seminar, International Studies, Science, and Capstone), but courses counted toward university requirements may also be used to satisfy a college and/or a major requirement; similarly, courses counted toward college requirements may also be used to satisfy a university and/or a major requirement.

COLLEGE REQUIREMENTS FOR ALL CALS B.S. DEGREE PROGRAMS

Code	Title	Credits
Quality of Work: Students must maintain a minimum cumulative grade point average of 2.000 to remain in good standing and be eligible for graduation.		
Residency: Students must complete 30 degree credits in residence at UW–Madison after earning 86 credits toward their undergraduate degree.		
First Year Seminar (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSFirstYearSeminarCourses)		1
International Studies (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSInternationalStudiesCourses)		3
Physical Science Fundamentals		4-5
CHEM 103	General Chemistry I	
or CHEM 108	Chemistry in Our World	
or CHEM 109	Advanced General Chemistry	
Biological Science		5
Additional Science (Biological, Physical, or Natural)		3
Science Breadth (Biological, Physical, Natural, or Social)		3
CALS Capstone Learning Experience: included in the requirements for each CALS major (see "Major Requirements") (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSCapstoneRequirement)		

MAJOR REQUIREMENTS

Code	Title	Credits
Mathematics and Statistics		
Complete one of the following (or may be satisfied by placement exam):		5-6
MATH 112 & MATH 113	Algebra and Trigonometry	
MATH 114	Algebra and Trigonometry	
MATH 171	Calculus with Algebra and Trigonometry I	
Complete one of the following:		3
STAT 301	Introduction to Statistical Methods	
STAT 371	Introductory Applied Statistics for the Life Sciences	
Chemistry		
Complete one of the following:		4-5
CHEM 103	General Chemistry I	
CHEM 108	Chemistry in Our World	
CHEM 109	Advanced General Chemistry	
Biology		
Complete one of the following options:		10
Option 1 (recommended):		
BIOLOGY/BOTANY/ZOOLOGY 151 & BIOLOGY/BOTANY/ZOOLOGY 152	Introductory Biology and Introductory Biology	
Option 2:		
ZOOLOGY/BIOLOGY 101 & ZOOLOGY/BIOLOGY 102 & BOTANY/BIOLOGY 130	Animal Biology and Animal Biology Laboratory and General Botany	

Option 3:		
BIOCORE 383 & BIOCORE 384 & BIOCORE 485 & BIOCORE 486	Cellular Biology and Cellular Biology Laboratory and Principles of Physiology and Principles of Physiology Laboratory	
Core		
Wildlife Ecology and Management		
F&W ECOL 101	Orientation to Wildlife Ecology (Counts for CALS First Year Seminar)	1
F&W ECOL 306	Terrestrial Vertebrates: Life History and Ecology	4
F&W ECOL 318	Principles of Wildlife Ecology	3
or BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology	
F&W ECOL 379	Principles of Wildlife Management	3
F&W ECOL 561	Wildlife Management Techniques	3
F&W ECOL 655	Animal Population Dynamics	3
Plant Taxonomy		
BOTANY 400	Plant Systematics	4
or BOTANY 401	Vascular Flora of Wisconsin	
Evolution/Genetics		
Complete one of the following:		3-5
ZOOLOGY/ ANTHRO/ BOTANY 410	Evolutionary Biology	
GENETICS 466	Principles of Genetics	
BIOCORE 381 & BIOCORE 382	Evolution, Ecology, and Genetics and Evolution, Ecology, and Genetics Laboratory [1]	
Vertebrate Taxonomy and Natural History		
Complete one of the following:		5-6
ZOOLOGY/ AN SCI/ F&W ECOL 520 & ZOOLOGY/ AN SCI/ F&W ECOL 521	Ornithology and Birds of Southern Wisconsin	
ZOOLOGY/ ENVIR ST 510 & ZOOLOGY/ ENVIR ST 511	Ecology of Fishes and Ecology of Fishes Lab	
Major Electives		
Complete 15 credits from across at least 3 different categories (see course list below):		15
Physical Science		
Wildlife Resources and Technical Skills		
Anatomy/Physiology/Disease		
Conservation		
Forestry/Botany		
Ecosystem Ecology		
Policy, Administration, and Law		
Social Aspects of Natural Resources Management		
Capstone		
Complete one of the following:		3
F&W ECOL 577	Complexity and Conservation of White-tailed Deer	
F&W ECOL 599	Wildlife Research Capstone	
Total Credits		**69-74**

1 Only allowed for students who completed the rest of the Biocore curriculum listed under Biology.

There may be additional requirements for students seeking Wildlife Biologist Certification through The Wildlife Society (TWS). Please refer to TWS website for current requirements: https://wildlife.org/learn/professional-development-certification/certification-programs/

MAJOR ELECTIVES

Code	Title	Credits
Physical Science		
CHEM 104	General Chemistry II	5
CHEM 109	Advanced General Chemistry	5
PHYSICS 103	General Physics	4
PHYSICS 104	General Physics	4
PHYSICS 201	General Physics	5
PHYSICS 207	General Physics	5
PHYSICS 208	General Physics	5
GEOSCI 202	Introduction to Geologic Structures	4
GEOSCI 204	Geologic Evolution of the Earth	4
SOIL SCI 301	General Soil Science	3
Wildlife Resources and Technical Skills		
ENVIR ST/ SOIL SCI 575	Assessment of Environmental Impact	3
F&W ECOL 404	Wildlife Damage Management	3
F&W ECOL 424	Wildlife Ecology Summer Field Practicum	2
F&W ECOL 658	Forest Resources Practicum	3
GEOG/ENVIR ST/ F&W ECOL/ G L E/GEOSCI/ LAND ARC 371	Introduction to Environmental Remote Sensing	3
GEOG/CIV ENGR/ ENVIR ST 377	An Introduction to Geographic Information Systems	4
LAND ARC/ ENVIR ST 581	Prescribed Fire: Ecology and Implementation	3
LAND ARC 668	Restoration Ecology	3
ZOOLOGY 405	Introduction to Museum Studies in the Natural Sciences	2-3
Anatomy/Physiology/Disease		
ANAT&PHY 335	Physiology	5
AN SCI/DY SCI 373	Animal Physiology	3
F&W ECOL/ SURG SCI 548	Diseases of Wildlife	3
ENTOM/M M & I/ PATH-BIO/ ZOOLOGY 350	Parasitology	3
ZOOLOGY 430	Comparative Anatomy of Vertebrates	5

ZOOLOGY 611	Comparative and Evolutionary Physiology	3
Conservation		
ANTHRO 668	Primate Conservation	3
F&W ECOL/ ENVIR ST/ ZOOLOGY 360	Extinction of Species (Meets CALS International Studies Requirement)	3
F&W ECOL/ BOTANY/ENVIR ST/ ZOOLOGY 651	Conservation Biology	3
F&W ECOL/ ZOOLOGY 660	Climate Change Ecology	3
GEOG/ ENVIR ST 339	Environmental Conservation	4
Forestry/Botany		
F&W ECOL/ ENVIR ST 100	Forests of the World (Meets CALS International Studies Requirement)	3
F&W ECOL 300	Forest Biometry	4
F&W ECOL 305	Forest Operations	2
F&W ECOL/ BOTANY 402	Dendrology	2
F&W ECOL 410	Principles of Silviculture	3
F&W ECOL 448	Disturbance Ecology	3
F&W ECOL 449	Disturbance Ecology Lab (I): Herbivores and Fire	1
F&W ECOL 450	Disturbance Ecology Lab (II): Forest Pathogens	1
F&W ECOL/ BOTANY 455	The Vegetation of Wisconsin	4
F&W ECOL 550	Forest Ecology	3
Ecosystem Ecology		
AGRONOMY/ BOTANY/ SOIL SCI 370	Grassland Ecology	3
LAND ARC/ ENVIR ST 361	Wetlands Ecology	3
ZOOLOGY/ ENVIR ST 315	Limnology-Conservation of Aquatic Resources	2
ZOOLOGY 316	Laboratory for Limnology-Conservation of Aquatic Resources	2-3
Policy, Administration, and Law		
ENVIR ST/ GEOG 337	Nature, Power and Society	3
ENVIR ST/HISTORY/ LEGAL ST 430	Law and Environment: Historical and Contemporary Perspectives	3
ENVIR ST/ GEOG 439	US Environmental Policy and Regulation	3-4
ENVIR ST/ ECON/POLI SCI/ URB R PL 449	Government and Natural Resources	3-4
F&W ECOL/ ENVIR ST 515	Natural Resources Policy	3
Social Aspects of Natural Resource Management		
A A E/ECON/ ENVIR ST 343	Environmental Economics	3-4
AMER IND/ ENVIR ST 306	Indigenous Peoples and the Environment	3
AMER IND/ ENVIR ST/ GEOG 345	Managing Nature in Native North America	3
AMER IND/ GEOG 410	Critical Indigenous Ecological Knowledges	3
AMER IND/ ENVIR ST 341	Indigenous Environmental Communicators	3
C&E SOC/ F&W ECOL/ SOC 248	Environment, Natural Resources, and Society	3
C&E SOC/SOC 541	Environmental Stewardship and Social Justice	3
F&W ECOL/ ZOOLOGY 335	Human/Animal Relationships: Biological and Philosophical Issues	3

UNIVERSITY DEGREE REQUIREMENTS

Total Degree	To receive a bachelor's degree from UW–Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.
Residency	Degree candidates are required to earn a minimum of 30 credits in residence at UW–Madison. "In residence" means on the UW–Madison campus with an undergraduate degree classification. “In residence” credit also includes UW–Madison courses offered in distance or online formats and credits earned in UW–Madison Study Abroad/Study Away programs.
Quality of Work	Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.