

# WILDLIFE ECOLOGY, BS

## REQUIREMENTS

### UNIVERSITY REQUIREMENTS

All undergraduate students must complete both the following Core General Education (Core GenEd) and University Degree and Quality of Work requirements. The requirements below apply to students whose first term at UW-Madison or whose earliest post-high school college attendance at any institution is Summer 2026 or later.

Students whose first term at UW-Madison or whose earliest post-high school college attendance at any institution occurred before Summer 2026 should refer to the archived Guide (<https://guide.wisc.edu/archive/>) for the requirements that apply to them.

### CORE GENERAL EDUCATION (CORE GENED) REQUIREMENTS

**Civics & Perspectives** 3 credits of Civics & Perspectives coursework.

**Communication & Literacy** 6 credits of Communication & Literacy coursework. This requirement may be partially satisfied by a qualifying placement test score. More information: <https://go.wisc.edu/qualifyingenglishplacement> (<https://go.wisc.edu/qualifyingenglishplacement/>)

**Humanities & Arts** 6 credits of Humanities & Arts coursework.

**Mathematics & Quantitative Reasoning** 6 credits of Mathematics & Quantitative Reasoning coursework. This requirement may be partially satisfied by a qualifying placement test score. More information: <https://go.wisc.edu/qualifyingmathplacement> (<https://go.wisc.edu/qualifyingmathplacement/>)

**Natural Science & Wellness** Complete both:

- 6 credits of Natural Science & Wellness or Natural Science & Wellness + Laboratory coursework.
- one course must be in Natural Science & Wellness + Laboratory coursework.

**Social & Behavioral Science** 3 credits of Social & Behavioral Science coursework.

**Total Credits** 30 credits.

For more information see the policy (<https://policy.wisc.edu/library/UW-1095/>).

### UNIVERSITY DEGREE AND QUALITY OF WORK REQUIREMENTS

All undergraduate degree recipients must complete the following minimum requirements. Requirements for some programs will exceed these requirements; see program requirements for additional information.

**Total Degree** 120 degree credits.

**Residency** Complete 30 credits in residence. A course is considered "in residence" if it is taken when in undergraduate degree-seeking status and:

- is offered by UW-Madison and completed on the UW-Madison campus or at an approved off-site location, or
- is offered by UW-Madison in an online or distance format, or is completed during participation in a UW-Madison study abroad/study away program.

**Quality of Work** Achieve at least the minimum grade point average specified by the school, college, and/or academic program.

**Math** Demonstrate minimal mathematics competence by:

- placing above MATH 96, or
- successfully completing MATH 96, or
- successfully completing a more advanced mathematics course such as MATH 112, MATH 113, MATH 114, MATH 141, MATH 211, or MATH 221.

**English Language** If required to take the UW-Madison English as a Second Language Assessment Test (MSN-ESLAT), demonstrate minimal English language competence by:

- earning credit for ESL 118, or
- achieving a qualifying MSN-ESLAT placement test score.

**Language** Complete one:

- 2 high school units of a single language other than English, or
- one course with the second semester Language designation.

**Major Declaration** Declare and complete the requirements for at least one major.

## COLLEGE OF AGRICULTURAL AND LIFE SCIENCES REQUIREMENTS

### CALS GRADUATION REQUIREMENTS

**Cumulative Credits**

- Students must earn 120 degree credits.
- Students declared in Biological Systems Engineering BS must earn 125 degree 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.

In addition to the university's general requirements, all undergraduate students in CALS must satisfy a set of college and major requirements. Courses may not double count within university requirements, CALS college requirements, or major requirements. A course may count toward university requirements and a college and/or a major requirement; similarly, a course counted toward college requirements may also be used to satisfy a university and/or a major requirement.

## CALS COLLEGE REQUIREMENTS

CALS First-Year Seminar 1 credit. See the full list of eligible courses below or use this link: <https://go.wisc.edu/calsfirstyearseminars> (<https://go.wisc.edu/calsfirstyearseminars/>)

Ethnic Studies 3 credits with the Ethnic Studies designation.

Communication A Complete either:  
 • 1 course with the Communication A designation, or  
 • satisfaction of Communication A based on UW Placement Test.

Quantitative Reasoning A Complete either:  
 • 1 course with the Quantitative Reasoning A designation, or  
 • satisfaction of Quantitative Reasoning A based on UW Placement Test.

Introductory Chemistry Complete one:  
 • CHEM 103  
 • CHEM 108  
 • CHEM 109

CALS International Comparisons 3 credits. See the full list of eligible courses below or use this link: <https://go.wisc.edu/calsinternationalcomparisons> (<https://go.wisc.edu/calsinternationalcomparisons/>)

Communication B 1 course with the Communication B designation.

Quantitative Reasoning B 1 course with the Quantitative Reasoning B designation.

Biological Science 5 credits with the Biological Science designation.

Additional Science 3 credits with the Biological, Physical, or Natural Science designations.

Science Breadth 3 credits with the Biological, Physical, Natural, or Social Science designations.

Humanities 6 credits with the Humanities or Literature designation.

Social Sciences 3 credits with the Social Sciences designation.

Capstone Learning Experience Each major articulates the required capstone learning experience.

### CALS First-Year Seminars

Code	Title	Credits
AN SCI 135	Grand Challenges and Career Opportunities in Animal and Dairy Sciences	1
BIOCHEM 100	Biochemistry First-Year Seminar	1
COUN PSY 125	The Wisconsin Experience Seminar	1
F&W ECOL 101	Orientation to Wildlife Ecology	1
F&W ECOL 105	Environment, Pollutants, and You	3
GENETICS 155	Freshman Seminar in Genetics	1
INTEGSCI 100	Exploring Biology	2
INTEGSCI 140	Exploring Service in STEM	1
INTER-AG 155	Issues in Agriculture, Environment, and Life Sciences	1

LSC 155	First-Year Seminar in Science Communication	1
MICROBIO 150	Microbiomes and Microbiology - First-Year Seminar	1
PLANTSCI/AGROECOL 100	First-Year Seminar in Agroecology and Plant Science	1
PL PATH 155	Food Frontlines: Security, Sustainability, and Survival	1
SOIL SCI 155	First-year Seminar in Soil and Environmental Sciences	1

### Learning Community/Student Group Courses

The following learning community/student group courses are approved as CALS First-Year Seminars.

COUN PSY 117	PEOPLE First Year Seminar	1
INTEGSCI 110	BioHouse Seminar: Biology for the 21st Century	1
INTER-AG 117	GreenHouse Roots Seminar	1
INTER-AG 140	CALS QuickStart: Foundations	1
INTER-AG 175	WISE Seminar	1

### CALS International Comparisons

Code	Title	Credits
The 3 credit requirement may be fulfilled as either a stand-alone 3 credit course or as a set of courses as listed below.		
A A E/ENVIR ST 244	The Environment and the Global Economy	4
A A E 319	The International Agricultural Economy	3
A A E/NUTR SCI 350	World Hunger and Malnutrition	3
A A E 352	Global Health: Economics, Natural Systems, and Policy (approved for enrollments Summer 2021 and later)	4
A A E/INTL ST 373	Globalization, Poverty and Development	3
A A E/INTL ST 374	The Growth and Development of Nations in the Global Economy	3
A A E/ECON 473	Economic Growth and Development in Southeast Asia	3
A A E/ECON 474	Economic Problems of Developing Areas	3
A A E/ECON/INTL BUS 462	Latin American Economic Development	3
A A E/ECON 477	Agricultural and Economic Development in Africa	3
AGROECOL 377	Global Food Production and Health	3
AN SCI/DY SCI 370	Livestock Production and Health in Agricultural Development	3
ASIAN/HISTORY/POLI SCI 255	Introduction to East Asian Civilizations (approved for enrollments Summer 2021 and later)	3-4
C&E SOC/SOC 341	Labor in Global Food Systems (approved for enrollments Summer 2020 and later)	3
C&E SOC/ENVIR ST/SOC 540	Sociology of International Development, Environment, and Sustainability	3

CSCS 500	Global Health and Communities: From Research to Praxis	3
DY SCI 471	Food Production Systems and Sustainability	3
ENTOM/ ENVIR ST 201	Insects and Human Culture—a Survey Course in Entomology	3
ENTOM/ ENVIR ST 205	Our Planet, Our Health (approved for enrollments Fall 2026 and later)	3
ENTOM/ ZOOLOGY 371	Medical Entomology: Biology of Vector and Vector-borne Diseases	3
F&W ECOL/ ENVIR ST 100	Forests of the World (approved for enrollments Summer 2020 and later)	3
F&W ECOL/ ENVIR ST/ ZOOLOGY 360	Extinction of Species	3
LSC 251	Science, Media and Society (approved for enrollments Summer 2020 and later)	3
PL PATH/ BOTANY 123	Plants, Parasites, and People	3
PL PATH 311	Global Food Security	3
PLANTSCI 370	World Vegetable Crops	3
The following study abroad courses fulfill the CALS International Comparisons requirement. Only the specific course numbers and titles listed, including Topics titles (in parentheses), are approved to meet the CALS International Comparisons requirement.		
BIOCHEM 307	Study Abroad: Introduction to Biological Sciences Research in Japan (approved for enrollments Fall 2026 and later)	3
NUTR SCI/INTER- AG 421	Global Health Field Experience (UW Mobile Clinics and Health Care in Uganda)	3
INTER-AG 321 & INTER-AG/ NUTR SCI 421	Study Abroad Pre-Departure Seminar and Global Health Field Experience (UW Global Health Community Health and Asset-Based Community Development in Sri Lanka)	3
INTER-AG 321 & INTER-AG/ NUTR SCI 421	Study Abroad Pre-Departure Seminar and Global Health Field Experience (UW Agriculture, Health and Nutrition in Uganda)	3
INTER-AG/ NUTR SCI 421	Global Health Field Experience (UW Health, Education and Tanzanian Culture)	3

## MAJOR REQUIREMENTS

Code	Title	Credits
<b>Mathematics and Statistics</b>		
Complete one of the following (or may be satisfied by placement exam):		5-6
MATH 112 & MATH 113	College Algebra and Trigonometry	

MATH 114	Precalculus	
Complete one of the following:		3

STAT 301	Introduction to Statistical Methods	
STAT 371	Introductory Applied Statistics for the Life Sciences	

<b>Chemistry</b>		
Complete one of the following:		4-5

CHEM 103	General Chemistry I	
CHEM 108	Chemistry in Our World	
CHEM 109	Advanced General Chemistry	

<b>Biology</b>		
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	

<b>Core</b>		
<i>Wildlife Ecology and Management</i>		

F&W ECOL 101	Orientation to Wildlife Ecology (Counts for CALS First Year Seminar)	1
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F&W ECOL 306	Terrestrial Vertebrates: Life History and Ecology	4
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F&W ECOL 318 or BOTANY/ ZOOLOGY 460	Principles of Wildlife Ecology General Ecology	3
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F&W ECOL 379	Principles of Wildlife Management	3
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F&W ECOL 561	Wildlife Management Techniques	3
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F&W ECOL 655	Animal Population Dynamics	3
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<i>Plant Taxonomy</i>		
Complete one of the following:		3-4

BOTANY 400	Plant Systematics	
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BOTANY 401	Vascular Flora of Wisconsin	
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BOTANY/ F&W ECOL 402	Dendrology: Woody Plant Identification and Ecology	
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<i>Evolution/Genetics</i>		
Complete one of the following:		3-5

ZOOLOGY/ ANTHRO/ BOTANY 410	Evolutionary Biology	
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GENETICS 466	Principles of Genetics	
BIOCORE 381 & BIOCORE 382	Evolution, Ecology, and Genetics and Evolution, Ecology, and Genetics Laboratory	
<i>Vertebrate Taxonomy and Natural History</i>		
Complete one of the following:		5-6
ZOOLOGY/ F&W ECOL 520 & ZOOLOGY/ 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	
<b>Major Electives</b>		
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		
<b>Capstone</b>		
Complete one of the following:		3
F&W ECOL 577	Complexity and Conservation of White-tailed Deer	
F&W ECOL 595	Wildlife Research Capstone	
<b>Total Credits</b>		<b>68-74</b>

## MAJOR ELECTIVES

Code	Title	Credits
<i>Physical Science</i>		
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
<i>Wildlife Resources and Technical Skills</i>		
ENVIR ST/ SOIL SCI 575	Assessment of Environmental Impact	3
F&W ECOL 210	Forest Resources Practicum	3
F&W ECOL 395	Data and GIS Tools for Ecology	3
F&W ECOL 420	Regulated Trapping in Wildlife Management and Conservation	1
F&W ECOL 422	Hunting for Conservation	1

F&W ECOL 424	Wildlife Ecology Summer Field Practicum	2
F&W ECOL 458	Environmental Data Science	3
GEOG/ENVIR ST/ 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
<i>Anatomy/Physiology/Disease</i>		
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
<i>Conservation</i>		
ANTHRO 668	Primate Conservation	3
F&W ECOL/ ENVIR ST/ ZOOLOGY 360	Extinction of Species (Meets CALS International Comparisons Requirement)	3
F&W ECOL/ BOTANY/ENVIR ST/ ZOOLOGY 516	Conservation Biology	3
F&W ECOL/ ZOOLOGY 660	Climate Change Ecology	3
GEOG/ ENVIR ST 339	Conservation and Climate Change - Local to International Strategies	4
<i>Forestry/Botany</i>		
BOTANY 455	The Vegetation of Wisconsin	4
F&W ECOL/ ENVIR ST 100	Forests of the World (Meets CALS International Comparisons Requirement)	3
F&W ECOL 300	Forest Measurements	4
F&W ECOL 305	Forest Operations	2
F&W ECOL 410	Silviculture: Applied Forest Ecology	3-4
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 550	Forest Ecology	3
F&W ECOL 551	Forest Ecology Lab	1
<i>Ecosystem Ecology</i>		
AGROECOL 370	Grassland Ecology	3
LAND ARC/ ENVIR ST 361	Wetlands Ecology	3

ZOOLOGY 304	Marine Biology	2
ZOOLOGY/ ENVIR ST 315	Limnology-Conservation of Aquatic Resources	2
ZOOLOGY 316	Laboratory for Limnology-Conservation of Aquatic Resources	2-3
<i>Policy, Administration, and Law</i>		
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
<i>Social Aspects of Natural Resource Management</i>		
A A E/ENVIR ST 244	The Environment and the Global Economy	4
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 341	Indigenous Environmental Communicators	3
AMER IND/ ENVIR ST/ GEOG 345	Caring for Nature in Native North America	3
AMER IND/ GEOG 410	Critical Indigenous Ecological Knowledges	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
ZOOLOGY 335	Human/Animal Relationships: Biological and Philosophical Issues	3