

WILDLIFE AND FISHERIES SCIENCE, B.S.

Begin Campus: Any Penn State Campus

End Campus: University Park

Degree Requirements

For the Bachelor of Science in Wildlife and Fisheries Science, a minimum of 120 credits is required for the Wildlife option and a minimum of 122 credits is required for the Fisheries option:

Requirement	Credits
General Education	45
Electives	3-9
Requirements for the Major	87-95

21 of the 45 credits for General Education are included in the Requirements for the Major. This includes: 9 credits of GN courses; 6 credits of GQ courses; 3 credits of GS courses; 3 credits of GWS courses.

Requirements for the Major

To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44>).

Common Requirements for the Major (All Options)

Code	Title	Credits
Prescribed Courses		
BIOL 110	Biology: Basic Concepts and Biodiversity	4
BIOL 240W	Biology: Function and Development of Organisms	4
CHEM 110	Chemical Principles I	3
CHEM 111	Experimental Chemistry I	1
CHEM 202	Fundamentals of Organic Chemistry I	3
ECON 104	Introductory Macroeconomic Analysis and Policy	3
ENGL 202C	Effective Writing: Technical Writing	3
PHYS 250	Introductory Physics I	4
SOILS 101	Introductory Soil Science	3
WFS 446	Wildlife and Fisheries Population Dynamics	3
<i>Prescribed Courses: Require a grade of C or better</i>		
BIOL 220W	Biology: Populations and Communities	4
WFS 209N	Wildlife and Fisheries Conservation	3
WFS 300	The Vertebrates	2
WFS 301	Vertebrate Laboratory	2
WFS 310	Wildlife and Fisheries Measurements	3
Additional Courses		
FOR 350 or STAT 460	Forest Ecosystem Monitoring and Data Analysis Intermediate Applied Statistics	3
MATH 111 or MATH 141	Techniques of Calculus II Calculus with Analytic Geometry II	2-4
STAT 240 or STAT 301	Introduction to Biometry	3
Select 3-4 credits of the following:		3-4

ANSC 322	Animal Genetics and Selection	
BIOL 133	Genetics and Evolution of the Human Species	
BIOL 222	Genetics	
BIOL 230W	Biology: Molecules and Cells	
Select 3 credits of the following:		3
AEE 440	Communication Methods and Media	
ENGL 416	Science Writing	
ENGL 418	Advanced Technical Writing and Editing	

Additional Courses: Require a grade of C or better

MATH 110 or MATH 140	Techniques of Calculus I Calculus With Analytic Geometry I	4
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Supporting Courses and Related Areas

Select 6 credits in natural resource economics, policy, planning, law, administration, or human dimensions from departmental list

Requirements for the Option

Select an option 18-23

Requirements for the Option Fisheries Option (22-23 credits)

Code	Title	Credits
Prescribed Courses		
WFS 410	General Fishery Science	3
WFS 452	Ichthyology	2
WFS 453	Ichthyology Laboratory	2
WFS 463W	Fishery Management	3
Additional Courses		
Select 3-4 credits of the following:		3-4
ANSC 201	Animal Science	
BIOL 141 & BIOL 142	Introduction to Human Physiology and Physiology Laboratory	
BIOL 446	Physiological Ecology	
Select 3 credits of the following:		3
WFS 407	Ornithology	
WFS 408	Mammalogy	
WFS 447W	Wildlife Management	
Select 3 credits of the following:		3
ENT 425	Freshwater Entomology	
FOR 470	Watershed Management	
WFS 422	Ecology of Fishes	
WFS/ERM 435	Limnology	
Select 3 credits of the following:		3
GEOG 160	Mapping Our Changing World	
GEOG 363	Geographic Information Systems	
GEOG 303	Introduction to Environmental Geology	
GEOG 340	Geomorphology	
GEOG 412	Water Resources Geochemistry	
GEOG 440	Marine Geology	
GEOG 452	Hydrogeology	
Wildlife Option (18-19 credits)		
Code	Title	Credits
Prescribed Courses		
FOR 203	Field Dendrology	3
WFS 407	Ornithology	3

WFS 408	Mammalogy	3
WFS 447W	Wildlife Management	3
Additional Courses		
WFS 406	Ornithology Laboratory	2
or WFS 409	Mammalogy Laboratory	
Select 2-3 credits of the following:		2-3
WFS 410	General Fishery Science	
WFS 422	Ecology of Fishes	
WFS 452	Ichthyology	
WFS 453	Ichthyology Laboratory	
WFS 463W	Fishery Management	
Select 3 credits of the following:		3
BIOL 414	Taxonomy of Seed Plants	
FOR 308	Forest Ecology	
HORT 101	Horticultural Science	
HORT 138	Ornamental Plant Materials	
HORT 445	Plant Ecology	

General Education

Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (<https://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program/>) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

Foundations (grade of C or better is required and Inter-Domain courses do not meet this requirement.)

- **Quantification (GQ):** 6 credits
- **Writing and Speaking (GWS):** 9 credits

Breadth in the Knowledge Domains (Inter-Domain courses do not meet this requirement.)

- **Arts (GA):** 3 credits
- **Health and Wellness (GHW):** 3 credits
- **Humanities (GH):** 3 credits
- **Social and Behavioral Sciences (GS):** 3 credits
- **Natural Sciences (GN):** 3 credits

Integrative Studies

- **Inter-Domain Courses (Inter-Domain):** 6 credits

Exploration

- **GN**, may be completed with Inter-Domain courses: 3 credits
- **GA, GH, GN, GS, Inter-Domain courses.** This may include 3 credits of World Language course work beyond the 12th credit level or the requirements for the student's degree program, whichever is higher: 6 credits

University Degree Requirements

First Year Engagement

All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar; colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

Cultures Requirement

6 credits are required and may satisfy other requirements

- United States Cultures: 3 credits
- International Cultures: 3 credits

Writing Across the Curriculum

3 credits required from the college of graduation and likely prescribed as part of major requirements.

Total Minimum Credits

A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits. Students should consult with their college or department adviser for information on specific credit requirements.

Quality of Work

Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

Limitations on Source and Time for Credit Acquisition

The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80>)). For more information, check the Suggested Academic Plan for your intended program.