

Wildlife Biology and Conservation B.S.

Program Requirements

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Minimum Requirements for Wildlife Biology and Conservation B.S.: 120 credits

Students must earn a C- grade or better in each course.

Code	Title	Credits
General University Requirements		
Complete the general university requirements. (https://catalog.uaf.edu/bachelors/#gurbachelorsdegreestext)		
General Education Requirements		
Complete the general education requirements. (https://catalog.uaf.edu/bachelors/#generaleducationrequirementsstext)		35-40
As part of the general education requirements, complete the following:		
<i>Communication</i>		
Complete one of the following:		
COM F131X	Fundamentals of Oral Communication: Group Context	
COM F141X	Fundamentals of Oral Communication: Public Context	
<i>Mathematics</i>		
Complete the following:		
MATH F251X	Calculus I	
or MATH F230X	Essential Calculus with Applications in the Life Sciences	
<i>Natural Sciences</i>		
Complete the following:		
CHEM F105X	General Chemistry I	
CHEM F106X	General Chemistry II	
B.S. Degree Requirements		
Complete the B.S. degree requirements. (https://catalog.uaf.edu/bachelors/#bachelorofsciencetext)		15
As part of the B.S. requirements, complete the following:		
BIOL F115X	Fundamentals of Biology I	
BIOL F116X	Fundamentals of Biology II	
STAT F200X	Elementary Statistics	
or STAT F300	Statistics	
Wildlife Biology and Conservation Program Requirements		
Complete the following:		
BIOL F239	Introduction to Plant Biology	4
BIOL F260	Principles of Genetics	4
BIOL F310	Animal Physiology	4
BIOL F371	Principles of Ecology	4
BIOL F425	Mammalogy	3

or BIOL F426	Ornithology	
BIOL F471	Population Ecology	3
or WLF F421	Ecology and Management of Large Mammals	
ENGL F314	Technical Writing	3
or ENGL F414	Research Writing	
PHYS F123X	College Physics I	3-4
or CHEM F321	Organic Chemistry I	
or GEOS F101X	The Dynamic Earth	
or NRM F338	Introduction to Geographic Information Systems	
or NRM F380	Soils and the Environment	
STAT F401	Regression and Analysis of Variance	4
or STAT F402	Scientific Sampling	
WLF F101	Survey of Wildlife Science	2
WLF F301	Design of Wildlife Studies	3
WLF F322	Principles and Techniques of Wildlife Management	3
WLF F470	Human Dimensions of Wildlife Management ¹	3
Complete two of the following:		5-6
BIOL F190	Introduction to Alaska Flora	
BIOL F331	Systematic Botany	
BIOL F430	Plant Physiology and Development	
BIOL F488	Arctic Vegetation Ecology: Geobotany	
Complete two of the following:		6-8
BIOL F406	Entomology	
BIOL F427	Ichthyology	
BIOL F441	Animal Behavior	
WLF/BIOL F104X	Natural History of Alaska	
WLF F305	Wildlife Diseases	
WLF F385	Global Change Biology	
WLF F421	Ecology and Management of Large Mammals	
WLF F425	Ecology and Management of Birds	
WLF F469	Landscape Ecology and Wildlife Habitat	
Complete one of the following:		3
ECON F235X	Introduction to Natural Resource Economics	
HIST F411	Environmental History	
NRM F204	Public Lands Law and Policy	
NRM F407	Environmental Law	
PS F447	U.S. Environmental Politics	
One elective course at the F300 level or higher in biology, wildlife biology, fisheries or natural resources management.		3-4
Electives		
General Electives		0-10
Total Credits		120

¹ Passing WLF F470 fulfills the baccalaureate capstone requirement for the Wildlife Biology and Conservation Program. Prior to registering for the capstone, students must have junior or senior class standing.

Note: B.S. degree candidates are strongly urged to obtain work experience in wildlife-related positions with public resource agencies or private firms. Faculty members can help students contact potential employers.

Note: Students are not permitted to use one course to satisfy more than one major requirement.

Requirements for biology teachers (grades 7-12)

Note: We strongly recommend that prospective secondary science teachers seek advising from the Alaska College of Education early in their undergraduate degree program so they can be appropriately advised of the State of Alaska requirements for teacher licensure. Students will apply for admission to the Alaska College of Education's postbaccalaureate teacher preparation program, a one-year intensive program, during their senior year. The above requirements apply to all candidates who apply to the Alaska College of Education for licensure in biology.

Code	Title	Credits
Complete all the requirements of the wildlife biology B.S. degree.		
All prospective biology teachers must complete the following:		
BIOL F342	Microbiology	4
BIOL F481	Principles of Evolution	4
CHEM F321 and CHEM F325	Organic Chemistry I and Organic Chemistry II	8
All prospective science teachers must complete the following:		
PHIL F481	Philosophy of Science	3
Total Credits		19

Learning Outcomes

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Learning Outcomes are measurable statements that describe knowledge or skills achieved by students upon completion of the program.

Students graduating from this program will be able to:

- Demonstrate a breadth and depth of knowledge of wildlife ecology that includes an understanding of the structure, function, and interactions of wildlife organisms, communities, populations, and ecosystems. They also will be able to apply their knowledge to research and manage wildlife and the diverse interactions among wildlife, people, and the environment.
- Effectively communicate their knowledge on application of the fundamentals of wildlife ecology including the principles and techniques of wildlife research and management. They should be able to make cogent scientific arguments for specialist audiences in the sciences but should also be able to present their arguments and evidence to general audiences.
- Apply modern methods and quantitative approaches to examine questions pertaining to wildlife ecology and the monitoring and managing of wildlife populations. They should be able to recognize an appropriate method or a particular task and have the competence to recognize bias in data collection. They should be able to summarize and analyze data using a variety of statistical approaches and create visual displays of information that effectively interpret and convey data.