

# BIOLOGY COMPREHENSIVE MAJOR: WILDLIFE AND CONSERVATION BIOLOGY EMPHASIS

## Program Requirements

The Wildlife and Conservation Biology Emphasis requires a minimum of 67 credits, including the 26-credit Biology Nucleus, 23 additional credits in Biology, and 18 credits of supporting courses.

All Biology majors require the 26-credit Biology Nucleus.

Code	Title	Credits
<b>Biology Nucleus</b>		
BIOL 150	Biological Principles (with laboratory) (GT-SC1)	4
BIOL 151	Diversity and Patterns of Life (with laboratory)	4
BIOL 301	General Ecology	3
BIOL 310	Cell Biology	3
BIOL 312	Genetics (with recitation)	4
CHEM 111	General Chemistry I (GT-SC2)	3
CHEM 112	General Chemistry Laboratory I (GT-SC1)	1
CHEM 113	General Chemistry II	3
CHEM 114	General Chemistry Laboratory II	1
<b>Total Credits</b>		<b>26</b>

Code	Title	Credits
<b>Required Biology courses</b>		
BIOL 302	Ecology Laboratory and Recitation	2
BIOL 430	Wildlife Ecology and Management (with laboratory)	4
BIOL 431	Wildlife Techniques Workshop	1
BIOL 353	Rocky Mountain Flora	3
One of the following:		3
BIOL 362	Evolution	
BIOL 440	Conservation Biology	
At least two of the following:		6-8
BIOL 320	Ornithology (with laboratory and recitation)	
BIOL 322	Mammalogy (with laboratory and recitation)	
BIOL 327	Field Entomology (with laboratory)	
BIOL 352	Botany (with laboratory)	
BIOL 355	Spring Fungi Rocky Mountains (with laboratory)	
BIOL 444	Colorado Ecoregions	
BIOL 467	Biology of Fishes	
BIOL 476	Aquatic Ecology (with laboratory)	
BIOL 481	Forest Ecology (with laboratory)	
Select at least two credits of Capstone Experience Courses:		2
BIOL 495	Senior Seminar (may be repeated)	
BIOL 496	Senior Thesis	
<b>Total Credits</b>		<b>21-23</b>

Code	Title	Credits
<b>Minimum supporting courses</b>		
CHEM 231	Introduction to Organic Chemistry and Biochemistry	3
CHEM 234	Introductory Organic and Biochemistry Laboratory	1
GEOG 340	Intro Geographic Info Systems	3
GEOL 101	Physical Geology (GT-SC2)	3
GEOL 105	Physical Geology Laboratory (GT-SC1)	1
MATH 213	Probability and Statistics (GT-MA1)	3
PHYS 140	Introductory Physics (with laboratory) (GT-SC1)	4
<b>Total Credits</b>		<b>18</b>

### Capstone Course Requirement

The following courses in the Biology Major fulfill the capstone course requirement: BIOL 495 SENIOR SEMINAR, BIOL 496 Senior Thesis, or EDUC 409 SECONDARY STUDENT TEACHING.

## Graduation Requirements

Undergraduate programs require a minimum of 120 semester credits for graduation. Of those 120 credits, 40 credits must be in upper-division courses (those marked 300 and above). Fifteen of these 40 upper-division credits must be earned in courses that are part of the standard or comprehensive major program being pursued.

Students are expected to review all graduation requirements, which can be found in the Western Undergraduate Catalog: Graduation Requirements (<https://catalog.western.edu/undergraduate/graduation-requirements/>).

Course	Title	Credits
<b>Year One</b>		
<b>Fall</b>		
BIOL 151	Diversity and Patterns of Life (with laboratory)	4
CHEM 111	General Chemistry I (GT-SC2)	3
CHEM 112	General Chemistry Laboratory I (GT-SC1)	1
ENG 102	Writing and Rhetoric I (GT-CO1)	3
HWTR 100	First Year Seminar	1
MATH 140	College Algebra (GT-MA1)	3
<b>Credits</b>		<b>15</b>
<b>Spring</b>		
BIOL 150	Biological Principles (with laboratory) (GT-SC1)	4
CHEM 113	General Chemistry II	3
CHEM 114	General Chemistry Laboratory II	1
MATH 141	Precalculus (GT-MA1)	4
ENG 103	Writing and Rhetoric II (GT-CO2)	3
<b>Credits</b>		<b>15</b>
<b>Year Two</b>		
<b>Fall</b>		
Gen Ed	General Education (Area I)	3
Gen Ed	General Education (Area III)	3
BIOL 301	General Ecology	3
BIOL 302	Ecology Laboratory and Recitation	2
CHEM 231	Introduction to Organic Chemistry and Biochemistry	3
CHEM 234	Introductory Organic and Biochemistry Laboratory	1
BIOL 353	Rocky Mountain Flora	3
<b>Credits</b>		<b>18</b>
<b>Spring</b>		
BIOL 310	Cell Biology	3
PHYS 140	Introductory Physics (with laboratory) (GT-SC1)	4

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MATH 213	Probability and Statistics (GT-MA1)	3
Arts & Humanities GE		3
GEOL 101	Physical Geology (GT-SC2)	3
GEOL 105	Physical Geology Laboratory (GT-SC1)	1
<b>Credits</b>		<b>17</b>
<b>Year Three</b>		
<b>Fall</b>		
GEOG 340	Intro Geographic Info Systems	3
BIOL 430	Wildlife Ecology and Management (with laboratory)	4
BIOL 431	Wildlife Techniques Workshop	1
Gen Ed	General Education (Area I)	3
Elective	Ecology Elective	4
<b>Credits</b>		<b>15</b>
<b>Spring</b>		
BIOL 312	Genetics (with recitation)	4
Arts & Humanities GE		3
BIOL 362 or BIOL 440	Evolution or Conservation Biology	3
Elective	Ecology Elective	4
<b>Credits</b>		<b>14</b>
<b>Year Four</b>		
<b>Fall</b>		
BIOL 495 or BIOL 496	Senior Seminar or Senior Thesis	1
Gen Ed	General Education (Area I)	3
Elective	Ecology Elective (Not Required)	8
Gen Ed	General Education	3
<b>Credits</b>		<b>15</b>
<b>Spring</b>		
BIOL 495 or BIOL 496	Senior Seminar or Senior Thesis	1
Elective	Ecology Elective (Not Required)	4
Gen Ed	General Education	6
<b>Credits</b>		<b>11</b>
<b>Total Credits</b>		<b>120</b>