

WILDLIFE BIOLOGY-BS

THIS IS A **GENERAL** CURRICULUM GUIDE AND IS NOT APPLICABLE TO EVERY STUDENT. IT IS IMPORTANT TO MEET WITH YOUR ADVISOR.

Year One			
BIO 121* General Biology II w/lab Prerequisite: MTH 110 (may be taken concurrently)	4 (6)	BIO 120* General Biology I w/lab (GE Life Science) Prerequisites: High school chemistry, CHM 109, or CHM 125 strongly recommended (CHM 109 or 125 may be taken concurrently)	4 (6)
CHM 109 Introductory Chemistry (GE Physical Science) Prerequisites: MTH 109 or 110 (may be taken concurrently)	4 (6)	¹ Physical Science Elective (see below)	4-5
OR ¹CHM 125+126 Principles of Chemistry I w/lab (GE Physical Science) Prerequisites: High school chemistry and (MTH 110 or MTH 122 or MTH 125 or MTH 201)	4 (6)	NRM 150 Introduction to Natural Resource Conservation	3
Gen Ed (GE Art) or ² WRT 120 (self-placement)	3	² WRT 130 or WRT 150 Strategies in Writing (GE Writing)	3-4
Gen Ed (GE Social/Behavioral) OR ³ MTH 122 College Algebra Prerequisite: MTH 110 or assignment through Grand Valley math placement	3	⁴ Elective (if needed)	1
⁴ Elective	1		
<i>*It is strongly recommended that WB majors take BIO 121 before BIO 120.</i>			
<i>Numbers noted within (parentheses) are contact hours</i> <i>Total</i>	<i>15</i>	<i>Total</i>	<i>15-16*</i>
Year Two			
BIO 215 Ecology w/lab (<i>summer and fall only</i>) Prerequisites: BIO 121	4 (6)	BIO 308/NRM 308 Wildlife Ecology (<i>winter only</i>) Prerequisites: BIO 215	4 (6)
NRM 250 Natural Resource Mgmt & Mapping (<i>fall w limited winter sections</i>)	3 (5)	¹ Physical Science Elective (see below) (if needed)	4-5
STA 215 Intro to Applied Statistics (GE Math)	3	Animal Elective (see below)	3-4
Gen Ed (GE Philosophy & Literature (COM 202 recommended))	3	Gen Ed (GE Social/Behavioral)	3
⁴ Elective	1	⁴ Elective (if needed)	1
<i>Total</i>	<i>14</i>	<i>Total</i>	<i>15-16*</i>
Year Three			
BIO 408/NRM 408 Wildlife Management (<i>fall only</i>) Prerequisites: BIO 308 or NRM 308	4 (6)	Wildlife Theory & Application Elective (see below)	3-4
Wildlife Theory & Application Elective (see below)	3-4	Animal Elective (see below)	3-4
Animal Elective (see below)	3-4	Plant Elective (see below)	2-4
Gen Ed (GE Historical Analysis)	3	⁵ Issues Gen Ed+SWS (BIO 338-SWS recommended)	3
If needed, Gen Ed (GE US Diversity)	3	⁴ Elective or Gen Ed (GE US Diversity) (if needed)	1-3
		⁴ Elective (if needed)	1
<i>Total</i>	<i>15-16</i>	<i>Total</i>	<i>15</i>
Year Four			
BIO 375 Genetics and BIO 376 Genetics Laboratory BIO 375 Prerequisites: BIO 120 or CMB 155 and 156 BIO 376 Prerequisites: BIO 375 or 355 (either may be taken concurrently)	4 (6)	⁵ NRM 495 SWS Senior Project and Seminar Prerequisites: Senior Standing, STA 215, NRM 377, NRM 408, Plant Elective (see below)	3
NRM 377 Project Design & Seminar	1	Math & Statistics or Gen Ed (if needed)	2-4
Plant Elective (see below)	2-4	Gen Ed (if needed) or ⁴ Elective (if needed)	3-5
Issues Gen Ed (NRM 451 recommended)	3	Gen Ed (if needed) or ⁴ Elective (if needed)	3
Gen Ed (GE Global Perspectives)	3	Gen Ed (if needed) or ⁴ Elective (if needed)	1-3
⁴ Elective (if needed)	2		
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>14-16*</i>

*The block tuition rate is for 12-15 credits. You will pay additional tuition for any credits over 15 credits.

¹Students planning on professional or graduate school should complete CHM 125+126, 127+128, 235+236, 237+238, 461 and PHY 220 and PHY 221.

See the Preprofessional Advisors in the CLAS Academic Advising Center for more information.

²A grade of C or better is required in WRT 130 or 150 in order to satisfy the WRT requirement at GVSU.

³MTH 122 is required for CHM 127+128. **Take the Math Proficiency Tests for MTH 122 and/or 123 online: www.gvsu.edu/s/mv**

⁴Students must have a **minimum of 120 credits** to graduate with **58 of the 120 credits** being from a senior level institution and the **final 30 of the 120 credits** completed at GVSU. Elective refers to any course that will help meet these requirements.

⁵Students must complete a total of two courses with an SWS attribute.

⁶NRM 497 is a spring/summer course and can only be taken if NRM 496 is completed in the winter.

Declaring the Wildlife Biology Major:

1. In myBanner, select "Student" > "Student Records" > "Change Major" > "Change Major 1/Program"
2. Choose "Wildlife Biology-BS" from the drop-down box.
3. Click "Submit" and then "Change to New Program"

General Education Categories fulfilled by the Wildlife Biology major:
Life Science and Physical Science: BIO 120 and CHM 109 or CHM 15+126 (all fulfill lab requirement)
Mathematical Sciences: STA 215
Philosophy & Literature: COM 202*
Issues (recommended): BIO 338-SWS* and NRM 451*

*By choosing the correct general education classes, graduates can be eligible for certification as an Associate Wildlife Biologist by the Wildlife Society. More information can be found at, www.wildlife.org. Please consult with your faculty advisor.

Students must complete electives from each category as described below.
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Wildlife Theory & Application Electives

Complete at least 6 credits from the following:

- BIO 210 – Evolutionary Biology (3)
Prerequisites: BIO 120 and BIO 121
- ^W NRM 405 – GIS Applications in Natural Resources (3) w/ lab
Prerequisites: GPY 307 or NRM 250
- ^F BIO 386 or NRM 386 – Ecological Restoration and Management (4) w/ lab
Prerequisites: BIO 215
- ^W BIO 415 or NRM 415 – Fire Ecology and Management (3)
Prerequisites: BIO 215
- ^W NRM 462 – Forest Ecosystem Management (4) w/ lab
Prerequisites: NRM 150, NRM 250
- BIO 470 – Conservation Biology (3)
Prerequisites: BIO 215
- ^{FE} BIO 475 – Population Genetics (3)
Prerequisites: BIO 210 and (either BIO 355 or BIO 375), or by permission
- ^W BIO 485 – Molecular Ecology (3) w/ lab
Prerequisites: BIO 375

^F *Offered in Fall*

^W *Offered in Winter*

^{SS} *Offered in Spring/Summer*

^E *Offered in Even years only*

^O *Offered in Odd years only*

Animal Electives

Complete at least 9 credits from the following:

- ^F BIO 222 – Natural History of Vertebrates (3) w/ lab
Prerequisites: BIO 121
- ^{WO} BIO 232 – Natural History of Invertebrates (3) w/ lab
Prerequisites: BIO 121
- ^F BIO 272 – Insect Biodiversity (3) w/ lab
Prerequisites: BIO 121 (BIO 215 recommended)
- ^W BIO 342 – Ornithology (3) w/ lab
Prerequisites: BIO 121
- ^F BIO 412 – Mammalogy (4) w/ lab
Prerequisites: BIO 121 and BIO 215
- ^F BIO 444 – Herpetology (4) w/ lab
Prerequisites: BIO 215

Plant Electives

Complete at least 9 credits from the following:

- ^{SS} BIO 243 – Plant Identification and Natural History (3) w/ lab
Prerequisites: BIO 121
- ^W BIO 303 – Plant Morphology (4) w/ lab
Prerequisites: BIO 215
- ^W BIO 313 – Plants and Islands (4)
Prerequisites: BIO 121 and Permission of Instructor. BIO 215 recommended.
- ^F BIO 323 – Aquatic and Wetland Plants (3) w/ lab
Prerequisites: BIO 121
- ^F BIO 333 – Plant Systematics (4) w/ lab
Prerequisites: BIO 121
- ^{FE} BIO 383 – Plant-Fungal Interactions (4) w/ lab
Prerequisites: BIO 121
- ^W BIO 403 – Plant Physiology (4) w/ lab
Prerequisites: BIO 120 (or CMB 155/156); and BIO 121; and CHM 231 or CHM 241
- ^F BIO 433 – Plant Ecology (4) w/ lab
Prerequisites: BIO 120 (or CMB 155/156); and BIO 121; and BIO 215
- ^F NRM 263 – Forest Vegetation (2) w/ lab
Prerequisites: BIO 121

Mathematics & Statistics

Complete at least 3 credits from the following:

- MTH 122 – College Algebra (3)
Prerequisite: MTH 110 or assignment through Grand Valley math placement
- MTH 123 – Trigonometry (3)
Prerequisite: MTH 122 or assignment through Grand Valley math placement (MTH 122 may be taken concurrently)
- MTH 124 – Precalculus: Functions and Models(5)
Prerequisite: MTH 110
- MTH 125 – Survey of Calculus (3)
Prerequisite: MTH 110; or assignment through math placement
- STA 216 – Intermediate Applied Statistics (3)
Prerequisite: STA 215 or STA 312

Physical Science Electives

Complete at least 5 credits from the following:

- CHM 127+128 – Principles of Chemistry II (5) w/ lab
Prerequisites: CHM 125+126 and (MTH 122 or MTH 125 or MTH 201)
- CHM 231 – Intro to Organic Chemistry (4) w/ lab
Prerequisite: CHM 109 or CHM 127+128
- CHM 234 – Biological Chemistry (4) w/ lab
Prerequisite: CHM 109 or 125+126
- GEO 111 – Exploring the Earth (4) w/ lab
- ^F NRM 281 – Principles of Soil Science (4) w/ lab
Prerequisite: CHM 109 or CHM 115
- PHY 200 – Physics for the Life Sciences (4) w/ lab
Prerequisite: MTH 110 or MTH 122 or MTH 201
- OR** PHY 220 – General Physics I (5) w/ lab
Prerequisites: MTH 122 and MTH 123

It is imperative to meet with your faculty advisor and an advisor in the CLAS Academic Advising Center regularly.

The CLAS Academic Advising Center is located in C-1-120 MAK, 616-331-8585. To schedule an appointment with an advisor in the CLAS Academic Advising Center, visit www.gvsu.edu/clasadvising and click on "Schedule Appointment."