

**BACHELOR OF SCIENCE
BIOLOGY**

GSU 100 The First Year Experience 0 hour

All degree seeking students are required to take GSU 100 during their first semester.

General Education Requirements 30 hours

Students must complete BIOL 120 and MATH 115 as part of the General Education requirements.

Biology Major 71 hours

BIOL	120	Principles of Biology I	
BIOL	121	Principles of Biology II	4
BIOL	193	Scientific Writing	1
BIOL	236	Introduction to Genetics	4
BIOL	293	Experimental Design	1
BIOL	493	Senior Seminar	1
BIOL	497	Internship II (OR)	
BIOL	499	Individual Research Problems	3
CHEM	101	General Chemistry I	4
CHEM	102	General Chemistry II	4
CHEM	301	Organic Chemistry I	4
MATH	115	College Algebra	
MATH	120	Precalculus (OR)	
MATH	125	College Trigonometry (OR)	
MATH	202	Calculus I	3-4
MATH	256	Probability and Statistics I	3
PHYS	201	General Physics I	4
PHYS	202	General Physics II	4
Restricted Electives			31

Students are required to complete at least one course from each of the following categories:

Organismal Biology (select at least one)

BIOL	305	General Botany	4
BIOL	314	Zoology	4
BIOL	351	Flora of West Virginia	3
BIOL	361	Microbiology	4
*WLMT	404	Mammalogy	4

*WLMT 404 will not count for the one required course in this category.

If a student takes WLMT 404, they must select at least two from this category.

Ecology/Evolution (select at least one)

BIOL	371	Evolution	4
BIOL	400	Ecology and Field Biology	4

Cellular/Physiology (select at least one)

BIOL	321	Animal Physiology	4
BIOL	335	Cell Physiology	4
BIOL	420	Neurobiology	3
BIOL	435	Developmental Biology	4
BIOL	460	Molecular Ecology	4
CHEM	380	Biochemistry I	4
CHEM	381	Biochemistry II	4

Applied Biology (select at least one)

BIOL	425	Bioethics	2
BIOL	436	Molecular Genetics	4
BIOL	470	Conservation Biology	4
BIOL	480	Topics in Biology	2

(continued on next page)

*+HLTH	231	Anatomy & Physiology II	4
+NRMT	201	Forest Ecology	3

*This course has a prerequisite (HLTH 230) that does not count toward the biology major, but will count toward General Electives.

*+If you apply HLTH 231 or NRMT 201 toward the biology major you must take equivalent hours of upper-level electives from the General Electives.

General Electives **19 hours**

General electives should be selected with consultation with your advisor to determine the best electives to help you toward a career and/or professional goal.

Total minimum hours required for degree **120 hours**

GATEWAY ASSESSMENT – BIOL 293

CAPSTONE ASSESSMENT – BIOL 493

Suggested for a Career in:

Ecology and Conservation

BIOL	305	Botany
BIOL	314	Zoology
BIOL	351	Flora of West Virginia
BIOL	371	Evolution
BIOL	400	Ecology and Field Biology
BIOL	460	Physiological Ecology
BIOL	470	Conservation Biology
NRMT	201	Forest Ecology

Pre-Professional (Pre-Med, Pre-Dental, Pre-Physician Assistant, Pre-Veterinarian)

HLTH	230	Anatomy and Physiology I
BIOL	314	Zoology
BIOL	335	Cell Physiology
BIOL	361	Microbiology
BIOL	371	Evolution
BIOL	420	Neurobiology
BIOL	425	Bioethics
BIOL	435	Developmental Biology
CHEM	302	Organic Chemistry II
CHEM	380	Biochemistry I
CHEM	381	Biochemistry II

Wildlife Biology

Required courses: Completion of these courses will allow eligibility to apply for an Associate Certificate in Wildlife Biology from the Wildlife Society.

BIOL	305	Botany
BIOL	314	Zoology
BIOL	351	Flora of West Virginia
BIOL	371	Evolution
BIOL	400	Ecology and Field Biology
BIOL	460	Physiological Ecology
BIOL	470	Conservation Biology
ENVR	393	Environmental Compliance
PSYC	201	General Psychology or

WLMT 301 Wildlife Law and Policy
WLMT 302 Wildlife Habitat Management
WLMT 404 Mammalogy
WLMT 493 Wildlife Techniques

Other Biology Careers – talk to your advisor about the best courses for you.

**BS: BIOLOGY
SUGGESTED PLAN OF STUDY**

FIRST YEAR

BIOL 120 (OR) BIOL 121.....	4	ART 200 (OR) MUSC 200	2
BIOL 193.....	1	BIOL 120 (OR) BIOL 121.....	4
CHEM 101	4	CART 101 (or other Gen Ed)	3
ENGL 101.....	3	CHEM 102.....	4
GSU 100.....	0	ENGL 102.....	3
MATH 115.....	3	Total Hours - Spring Semester	16
Total Hours - Fall Semester	15		

SECOND YEAR

BIOL 293.....	1	BIOL 236 (OR) BIOLOGY ELECTIVE	4
CHEM 301	4	ECON 201, 202, GEOG 203, PSYC 201, (OR) SOCS 225.....	3
HIST 201, 202, 207, 208 (OR) POSC 203	3	MATH 256.....	3
MATH 120 (OR) 125 (OR) MATH 202.....	3-4	BIOLOGY ELECTIVE.....	4
BIOLOGY ELECTIVE	4	Total Hours - Spring Semester	14
Total Hours - Fall Semester	15-16		

THIRD YEAR

HIST 201, 202, 207, 208 (OR) POSC 203	3	BIOL 236 (OR) BIOLOGY ELECTIVE	4
PHYS 201	4	BIOL 497 (OR) 499.....	1
BIOLOGY ELECTIVE	4	PHYS 202.....	4
GENERAL ELECTIVE.....	4	BIOLOGY ELECTIVE	3
Total Hours - Fall Semester	15	GENERAL ELECTIVE.....	3
		Total Hours - Spring Semester	15

FOURTH YEAR

BIOL 497 (OR) 499.....	1	BIOL 236 (OR) BIOLOGY ELECTIVE	4
ENGL 203, 204, 205, (OR) 206	3	BIOL 493.....	1
GENERAL ELECTIVE.....	3	BIOL 497 (OR) 499.....	1
BIOLOGY ELECTIVES	8	GENERAL ELECTIVES	9
Total Hours - Fall Semester	15	Total Hours - Spring Semester	15