

**232 Department of Science and Mathematics****BACHELOR OF SCIENCE BIOLOGY****GSC 100 The First Year Experience 0 hour**

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

**General Education Requirements 39 hours**

Students are required to take BIOL 120, BIOL 121 and MATH 115 as part of their General Education requirements to enhance their success in the program.

**Biology Major 63 hours**

BIOL 120	Principles of Biology I	
BIOL 121	Principles of Biology II	
BIOL 293	Experimental Design	1
BIOL 456	Genetics	4
BIOL 493	Senior Seminar	1
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 256	Probability and Statistics I	3
PHYS 201	General Physics I	4
PHYS 202	General Physics II	4

**Required Courses 15-16 hours**

One course from each of the following categories

**Organismal Biology (select at least one) 4**

BIOL 210	Zoology	
BIOL 305	General Botany	
BIOL 351	Flora of West Virginia	
BIOL 361	Microbiology	

**Ecology/Evolution (select at least one) 4**

BIOL 371	Evolution	
BIOL 400	Ecology and Field Biology	

**Cellular/Physiology (select at least one) 4**

BIOL 335	Cell Physiology	
BIOL 420	Neurobiology	
BIOL 435	Developmental Biology	
BIOL 460	Physiological Ecology	
CHEM 380	Biochemistry I*	

**Applied Biology (select at least one) 3-4**

BIOL 309	Human Anatomy and Physiology I	
BIOL 425	Bioethics	
BIOL 470	Conservation Biology	
NRMT 201	Forest Ecology	

**Major Electives 14-15 hours**

Recommended electives

Other courses from the above categories

BIOL	310	Human Anatomy and Physiology I*
BIOL	425	Bioethics
CHEM	302	Organic II*
CHEM	381	Biochemistry II*
NRMT	234	GIS Application I
NRMT	334	GIS Application II

**Minor** **18 hours**

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

**GATEWAY ASSESSMENT - BIOL 293 - CAPSTONE ASSESSMENT - BIOL 493**

**\*These courses can be applied to the major if they are not part of a minor or another major.**

**For careers in Ecology and Conservation**

**Recommended courses**

BIOL	210	Zoology
BIOL	305	Botany
BIOL	356	Flora of West Virginia
BIOL	470	Conservation Biology
BIOL	371	Evolution
BIOL	400	Ecology and Field Biology
BIOG	460	Physiological Ecology
NRMT	201	Forest Ecology
NRMT	234	GIS Applications I
NRMT	334	GIS Applications II

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

**Recommended courses**

BIOL	210	Zoology
BIOL	309	Anatomy and Physiology I
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

**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	BIOL 121 (OR) BIOL 120 .....	4
BIOL 193.....	1	CART 101 (or other Gen Ed) .....	3
CHEM 101 .....	4	CHEM 102.....	4
ENGL 101 .....	3	ENGL 102.....	3
GSC 100 .....	0	PED 201.....	1
MATH 115 .....	3	<b>Total Hours - Spring Semester .....</b>	<b>15</b>
<b>Total Hours - Fall Semester .....</b>	<b>15</b>		

**SECOND YEAR**

BIOL REQUIRED .....	4	ART 200, CART 200, FNAR 100 (OR) MUSC 200 .....	3
BIOL 293.....	1	BIOL REQUIRED.....	4
CHEM 301 .....	4	BIOL ELECTIVE.....	3
HIST 201, 202, 207, 208 (OR) POSC 203 ..	3	ECON 201, 202, GEOG 203, PSYC 201, SOCL 205 (OR) SOCS 225 .....	3
CSCI 101 .....	3	MATH 256 .....	3
<b>Total Hours - Fall Semester .....</b>	<b>15</b>	<b>Total Hours - Spring Semester .....</b>	<b>16</b>

**THIRD YEAR**

BIOL REQUIRED .....	4	BIOL 456 (OR) REQUIRED.....	4
HIST 201, 202, 207, 208 (OR) POSC 203 ..	3	BIOL ELECTIVE.....	4
PHYS 201.....	4	PHYS 202.....	4
MINOR.....	4	MINOR.....	4
<b>Total Hours - Fall Semester .....</b>	<b>15</b>	<b>Total Hours - Spring Semester .....</b>	<b>16</b>

**FOURTH YEAR**

BIOL REQUIRED .....	4	BIOL 456 (OR) REQUIRED.....	4
BIOL 499.....	1	BIOL 493 .....	1
BIOL ELECTIVE.....	3	BIOL 499 .....	2
ENGL 203, 204, 205, (OR) 206 .....	3	MINOR.....	6
MINOR.....	4	<b>Total Hours - Spring Semester .....</b>	<b>13</b>
<b>Total Hours - Fall Semester .....</b>	<b>15</b>		