

Bachelor of Science in Biology

Program Curriculum

120 credits

DSU General Education Requirements

All DSU General Education requirements must be fulfilled. A previously earned degree may fulfill those requirements, but courses must be equivalent to DSU's minimum General Education standards in American Institutions, English, and Mathematics.

Code	Title	Hours
General Education Core Requirements (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		
English		3-7
Mathematics		3-5
American Institutions		3-6
Life Sciences		3-10
Physical Sciences		3-5
Laboratory Science		0-1
Fine Arts		3
Literature/Humanities		3
Social & Behavioral Sciences		3
Exploration		3-5

Biology Program Requirements

Code	Title	Hours
CHEM 1210 & CHEM 1215	Principles of Chemistry I (PS) and Principles of Chemistry I Lab (LAB)	5
CHEM 1220 & CHEM 1225	Principles of Chemistry II and Principles of Chemistry II Lab	5
CHEM 2310 & CHEM 2315	Organic Chemistry I and Organic Chemistry I Lab	5
CHEM 2320 & CHEM 2325	Organic Chemistry II and Organic Chemistry II Lab	5
MATH 1210	Calculus I	4
Complete one of the following series of courses:		10
Series 1:		
PHYS 2010 & PHYS 2015	College Physics I and College Physics I Lab	
PHYS 2020 & PHYS 2025	College Physics II and College Physics II Lab	
Series 2:		
PHYS 2210 & PHYS 2215	Physics/Scientists Engineers I and Physics/Scientists Engineers Lab	
PHYS 2220 & PHYS 2225	Physics/Scientists EngineersII and Physics/Scientists Engineers II Lab	

Biology Core Requirements

Code	Title	Hours
BIOL 1610 & BIOL 1615	Principles of Biology I (LS) and Principles of Biology I Lab (LAB)	5
BIOL 1620 & BIOL 1625	Principles of Biology II and Principles of Biology II Lab	5
BIOL 3010	Evolution	3
BIOL 3030	Principles of Genetics	4

BIOL 3040 & BIOL 3045	General Ecology and General Ecology Lab	4
BIOL 3150 & BIOL 3155	Biostatistics and the Scientific Method and Biostatistics and the Scientific Method Lab	3

Complete one of the following sets of courses:

BIOL 3450 & BIOL 3455	General Microbiology and General Microbiology Lab
BIOL 3550 & BIOL 3555	Eukaryotic Cell Biology and Eukaryotic Cell Biology Lab

Complete one of the following courses:

BIOL 4910	Senior Seminar I
BIOL 4920	Senior Seminar II

Biology Elective Requirements

Code	Title	Hours
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Complete one of the following sets of courses:

BIOL 4500 & BIOL 4505	Comparative Vertebrate Physiology and Comparative Vertebrate Physiology Lab
BIOL 4600 & BIOL 4605	Plant Physiology and Plant Physiology Lab

Complete one of the following courses or sets of courses:

BIOL 3200 & BIOL 3205	Invertebrate Zoology and Invertebrate Zoology Lab
BIOL 4200 & BIOL 4205	Plant Taxonomy and Plant Taxonomy Lab
BIOL 4260 & BIOL 4265	Herpetology and Herpetology Lab
BIOL 4270 & BIOL 4275	Ichthyology and Ichthyology Lab
BIOL 4280	Marine Biology
BIOL 4380 & BIOL 4385	Ornithology and Ornithology Lab
BIOL 4411 & BIOL 4415	Mammalogy and Mammalogy Lab
BIOL 4440 & BIOL 4445	General Entomology and General Entomology Lab

Complete 14-15 credits from the following or from any upper-division BIOL course listed above not already used to fulfill a requirement:

BIOL 3000R	Rural Health Scholars (2 cr. max.)
BIOL 3100	Bioethics
BIOL 3110	Scientific Writing
BIOL 3140 & BIOL 3145	Comparative Vertebrate Anatomy and Comparative Vertebrate Anatomy Lab
BIOL 3230R	Cadaver Practicum
BIOL 3250	Cancer Biology
BIOL 3340 & BIOL 3345	Plant Anatomy and Plant Anatomy Lab
BIOL 3360	Developmental Biology
BIOL 4190 & BIOL 4195	Mammalian Histology and Mammalian Histology Lab
BIOL 4240 & BIOL 4245	Virology and Virology Lab
BIOL 4300 & BIOL 4305	Molecular Biology and Molecular Biology Laboratory
BIOL 4350 & BIOL 4355	Animal Behavior and Animal Behavior Lab

BIOL 4400	Pathophysiology
BIOL 4460 & BIOL 4465	Plant Ecology and Plant Ecology Lab
BIOL 4810R	Independent Research I
BIOL 4820R	Independent Research II
BIOL 4830R	Independent Research III
BIOL 4930R	Senior Thesis

Note:

A course may only be used to fulfill one program requirement.

Advising Note:

Pre-health professionals should complete CHEM 3510 Biochemistry I and a diversity course.

Graduation Requirements

1. Complete a minimum of 120 college-level credits (1000 and above).
2. Complete at least 40 upper-division credits (3000 and above).
3. Complete at least 30 upper-division credits at DSU for institutional residency.
4. Cumulative GPA 2.0 or higher.
5. Grade C or higher required (not C-) in each Program Requirement, Core Discipline Requirement, and Biology Elective Requirement course.
6. Maximum 6 total credits of BIOL 4810R, BIOL 4820R, BIOL 4830R, and/or BIOL 4930R may be used toward Biology requirements.

Graduation Plan

Course	Title	Hours
1st Year		
Fall Semester		
SSC 1010	Trailblazer Connections	2
BIOL 1610 & BIOL 1615	Principles of Biology I (LS) and Principles of Biology I Lab (LAB) (meets General Education (Life Sciences) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext))	5
CHEM 1210 & CHEM 1215	Principles of Chemistry I (PS) and Principles of Chemistry I Lab (LAB) (meets General Education (Physical Sciences) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext))	5
ENGL 1010	Introduction to Writing (EN)	3
	Hours	15
Spring Semester		
BIOL 1620 & BIOL 1625	Principles of Biology II and Principles of Biology II Lab	5
CHEM 1220 & CHEM 1225	Principles of Chemistry II and Principles of Chemistry II Lab	5
ENGL 2010	Intermediate Writing Selected Topics: (EN)	3
	Hours	13
2nd Year		
Fall Semester		
BIOL 3030	Principles of Genetics	4
CHEM 2310 & CHEM 2315	Organic Chemistry I and Organic Chemistry I Lab	5
General Education (Literature/Humanities) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
MATH 1210	Calculus I	4
	Hours	16
Spring Semester		
BIOL 3010	Evolution	3
BIOL 3040 & BIOL 3045	General Ecology and General Ecology Lab	4

CHEM 2320 & CHEM 2325	Organic Chemistry II and Organic Chemistry II Lab	5
General Education (Social & Behavioral Sciences) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
Hours		15
3rd Year		
Fall Semester		
BIOL Requirement (Approved Micro course/ Lab)		4
BIOL Elective (Upper-division Biology elective)		4
PHYS (Required Physics I course/ Lab) meets General Education (Exploration)		5
General Education (American Institutions) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
Hours		16
Spring Semester		
BIOL 3150 & BIOL 3155		3
Biostatistics and the Scientific Method and Biostatistics and the Scientific Method Lab		
PHYS (Required Physics II course/ Lab)		5
General Education (Fine Arts) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
General Elective		3
Hours		14
4th Year		
Fall Semester		
BIOL 4910 or BIOL 4920		1
Senior Seminar I or Senior Seminar II		
BIOL Requirement (Organismal course)		4
BIOL Elective (Upper-division Biology elective)		4
General Elective		3
General Elective		3
Hours		15
Spring Semester		
BIOL 4910 or BIOL 4920		1
Senior Seminar I or Senior Seminar II		
BIOL Elective (Upper-division Biology elective)		4
BIOL Elective (Upper-division Biology elective)		3
General Elective(s)		4
General Elective(s)		4
Hours		16
Total Hours		120