

Biology Major, B.S.

Department of Biology

This program offers preparation for graduate school and a sound basis for professional training in the biological and health sciences. Biology is an unusually broad field, and students can tailor their programs to fit their own needs and interests. To provide flexibility in pursuing personal interests or career preparation, the student chooses 18 credits of upper division biology electives. The Department of Biology encourages students to develop as active scholars and to participate in undergraduate research.

Typical Program of Study:

Fall Semester

First Year

Biol 1011 General Biology I ^a	5 cr
Chem 1151 General Chemistry I ^a or Chem 1161 Honors Chemistry I	5 cr
Comp 1120 College Writing	<u>3 cr</u> 13 cr

Spring Semester

Biol 1012 General Biology II	5 cr
Chem 1152 General Chemistry II or Chem 1162 Honors Chemistry II	5 cr
Math 1290 Calculus for the Natural Sciences ^b or Math 1296 Calculus I ^b	<u>5 cr</u> 15 cr

Second Year

Biol 2801 General Ecology	3 cr
Biol 2802 Ecology Lab ^c	2 cr
Chem 2521 Organic Chemistry I	4 cr
Math or statistics course ^d	<u>3-5 cr</u> 12-14 cr

Biol 2101 Cell Biology	3 cr
Chem 2522 Organic Chemistry II	4-5 cr
Liberal education or minor field courses	<u>7 cr</u> 14-15 cr

Third Year

Phys 2011 General Physics I ^e or Phys 1001 Introduction to Physics I	4-5 cr
Biol 2201 Genetics	3 cr
Comp 3150 Advanced Writing: Science	3 cr
Liberal education or minor field courses	<u>6 cr</u> 16-17 cr

Phys 2012 General Physics II ^e or Phys 1002 Introduction to Physics II	4-5 cr
Bio 4801 Evolution	2 cr
Biology upper division electives	4 cr
Liberal education or minor field course	<u>4 cr</u> 14-15 cr

Fourth Year

Biol 3997 Seminar I	.5 cr
Biology upper division electives	8 cr
Liberal education or minor field courses	<u>6 cr</u> 14.5 cr

Biol 3998 Seminar II	.5 cr
Biology upper division electives	6 cr
Liberal education or minor field courses	<u>6-9 cr</u> 12.5-15.5 cr

^aHigh school chemistry or Chem 1113 Introduction to General Chemistry is required before Biol 1011 and Chem 1151.

^bFirst math course is determined by math placement exam. This schedule presupposes placement into Math 1290/1296.

^cBiol 2801, 2802 should be taken together in the second year. If that's not possible, Biol 2802 can be taken in the third year.

^dMath 1297 Calculus II OR Stat 2411 Statistical Methods OR Stat 3611 Probability & Statistics.

^ePhys 2011-2012 is a calculus-based physics series requiring completion of Math 1297 Calculus II.

For further information:

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2003-2005 Catalog

Major Course Requirements	Credits	Prerequisites	Semester To Be Completed	Grade When Completed
Year 1				
Biol 1011 General Biology I	5	1 yr hs chemistry or 1 sem college chemistry		
Biol 1012 General Biology II	5	Biol 1011		
Chem 1151 General Chemistry I and	5	1 yr high school chemistry; hs algebra		
Chem 1152 General Chemistry II	5	Chem 1151		
OR Chem 1161 Honors General Chem I and	5	High school chemistry; placement		
Chem 1162 Honors General Chem II	5	Chem 1161		
Math 1290 Calculus for the Natural Sciences	5	Math placement test		
OR Math 1296 Calculus I	5	Math placement test		
Comp 1120 College Writing	3			
Year 2				
Biol 2101 Cell Biology	3	Biol 1012; 4 cr organic chemistry		
Biol 2801 General Ecology	3	Biol 1012		
Biol 2802 Ecology Laboratory	2	Biol 2801 (concurrent registration ok)		
Chem 2521 Organic Chemistry I	4	Chem 1152 or 1162		
Chem 2522 Organic Chemistry II	4-5	Chem 2521		
Math 1297 Calculus II	5	Math 1290 or Math 1296		
OR Stat 2411 Statistical Methods	3	Math placement test		
OR Stat 3611 Intro to Probability & Statistics	4	Math 1290 or Math 1296		
Year 3				
Biol 2201 Genetics	3	Biol 1012; Math 1004 or higher		
Biol 4801 Evolution	2	Biol 2201		
Biology upper division elective*	4			
Comp 3150 Advanced Writing: Science	3	Comp 1120; 60 credits		
Phys 1001 Introduction to Physics I and	5	algebra, trigonometry		
Phys 1002 Introduction to Physics II	5	Phys 1001		
OR Phys 2011 General Physics I and	4	Math 1290 or Math 1296		
Phys 2012 General Physics II	4	Phys 2011; Math 1297		
Year 4				
Biol 3997 Seminar I	0.5	60 credits		
Biol 3998 Seminar II	0.5	Biol 3997		
Biology upper division elective*	4			
Biology upper division elective*	4			
Biology upper division elective*	3			
Biology upper division elective*	3			

*Select 18 credits of biology electives at 2xxx level or higher. Must include a minimum of two lab courses or courses with a lab component. May include two of the following: MicB 5545 (3 cr), Phs1 5601 (3 cr), Phs1 5602 (2 cr).

NOTE: In addition to the above, students must complete the liberal education program and a minor to earn the B.S. degree