

BA or BS in Biology

Planning Sheet - Catalog Year 2014-2015

This planning sheet shows one suggested sequence in which the required courses for the biology major may be taken. Many factors, including initial placement in math, chemistry and English composition, will affect your actual schedule for completion of these courses. **To graduate in this program, students must earn a minimum grade of C in Biol 115 and 116 and must have a minimum GPA of 2.40 in Biol 115, 116, 213, 310/315, and 312/313.**

Freshman Year		
Fall Semester		
Biol 101	Perspectives in Biology	1 cr
Biol 115 (<i>may delay this course until spring*</i>)	Cells and the Evolution of Life (<i>pre or co-req=Chem 111</i>)	4 cr
Chem 111	Principles of Chemistry I (<i>SAT/ACT/COMPASS scores; HS chem grade</i>)	4 cr
Engl 102	College Writing & Rhetoric (<i>prereq=Engl 101 or equiv</i>)	3 cr
Gen Ed Core elective	Student's choice of Humanities, Social Science, Integrated Seminar	3 cr
<i>*may take math course as alternate</i>		15 cr
Spring Semester		
Biol 116	Organisms and Environments (<i>prereq=Biol 115 and Chem 111</i>)	4 cr
Chem 112	Principles of Chemistry II (<i>prereq=Chem 111</i>)	5 cr
Math 160 or 170*	Survey of Calc or Calc I (<i>prereq=SAT/ACT, COMPASS or Math 143; Math 170 also requires Math 144 Trig. COMPASS trig score of 51 or higher will also satisfy the trigonometry prerequisite for Math 170.</i>)	4 cr
Gen Ed Core elective	Student's choice of Humanities, Social Science, Integrated Seminar	3 cr
		16 cr
Sophomore Year		
Fall Semester		
Biol 312/313	Molecular and Cellular Biology and lab (<i>prereq=Biol 115</i>)	4 cr
Chem 275/276 or 277/278	Carbon Cpd. & lab (<i>req=Chem 111</i>) or Organic Chem I & lab (<i>prereq=Chem 112</i>)	4 cr
Stat 251	Statistical Methods (<i>prereq=Math 143 or 160 or 170</i>)	3 cr
Gen Ed Core elective(s)	May also choose to take course to satisfy BA/BS requirements	3-6 cr
		14-17 cr
Spring Semester		
Biol 213	Principles of Biological Struc & Func (<i>prereq=Biol 115</i>)	4 cr
Biol 314	Ecology and Pop Biology (<i>prereq=Biol 115 & 116; Math 143 or 160 or 170</i>) (<i>Biol 310 recommended. *If necessary, Biol 314 can be taken in spring of the junior year.</i>)	4 cr
Gen Ed Core and/ or Updv biology	May also choose to take course to satisfy BA/BS requirements	7-9 cr
		15 - 17 cr
Junior Year		
Fall Semester		
Biol 310/315	Genetics and lab (<i>prereq=Biol 115</i>)	4 cr
Biol 300 or 380	Survey of Biochem (<i>prereq=Chem 111; co-req=Chem 275 or 277</i>) or Intro Biochem (<i>prereq=Chem 111 and 277</i>)	3 or 4 cr
Phys 111	General Physics I & lab (<i>prereq=Math 143</i>)	4 cr
Gen Ed Core and/ or Updv biology	May also choose to take course to satisfy BA/BS requirements	3-6 cr
		15 - 18 cr
Spring Semester		
Phys 112	General Physics II & lab (<i>prereq=Phys 111</i>)	4 cr
Gen Ed Core elective		3 cr
Approved electives	Upper division biology elective or BA/BS course or other upper division	9 - 11 cr
		16 - 18 cr
Senior Year		
Fall Semester		
Biol 421	Advanced Evolutionary Biology (<i>prereq=Biol 314</i>)	3 cr
Gen Ed Core elective	If core curriculum is not yet satisfied	3 cr
Approved electives	Upper division biology elective or BA/BS course or other upper division	10 - 12 cr
		16 - 18 cr
Spring Semester		
Biol 411	Capstone Seminar (<i>prereqs=Biol 213, 310/315, 312/313, and 314, and senior standing</i>)	2 cr
Approved electives	Upper division biology elective or BA/BS course or other upper division	12 - 13 cr
		14 - 15 cr
Total must equal a minimum of:		120 cr
You must complete an average of 15 credits per semester to meet the minimum credit total in 8 semesters		

Approved upper division biology electives (300 and 400 level) must equal a minimum of **9 credits**.

Overall total for upper division credits must equal a minimum of **36 credits**.

Course offerings may change from year to year. Always check the current course catalog.

BA/BS requirements:

BA	6 cr in Humanities in addition to the minimum required for the 3 cr in Social Science in addition to the minimum required for the university core curriculum Equivalent of 16 credits in one foreign language
BS	3 cr in Humanities in addition to the minimum required for the university core curriculum 3 cr in Social Science in addition to the minimum required for the university core curriculum 6 cr in Nat Sci, Math, Stats - requirement is met by the courses required for the biology major
	OR
	Completion of a minor or second major

APPROVED UPPER DIVISION BIOLOGY ELECTIVES:

Select 9 credits of approved electives from the following list. Categories are intended only as a guide for student and adviser use. Additional classes can be substituted with prior approval of adviser and chairperson.

Natural History

Biol 478	Animal Behavior
Biol 481	Ichthyology
Biol 483	Mammalogy
Biol 489	Herpetology
REM 341	Systematic Botany
WLF 482	Ornithology

Anatomy/Physiology

Biol 423	Comparative Vertebrate Physiology
Biol 428	Microscopic Anatomy
Biol 450	Comparative Vertebrate Reproduction
MMBB 460 ?	Microbial Physiology
PISc 415	Plant Pathology

Quantitative/Integrative Biology

Biol 425	ST: Experimental Field Ecology
Biol 448	Plant -Animal Interactions
Biol 456	Computer Skills for Biologists
Ent 441	Insect Ecology
Math 437	Mathematical Biology
Soil 425	Microbial Ecology
WLF 440	Conservation Biology
WLF 448	Fish and Wildlife Population Ecology

Molecular/Cellular/Developmental (MCD) Biology

Biol 444	Genomics
Biol 461	Neurobiology
Biol 474	Principles of Developmental Biology
Chem 414	Applications of Nanomaterials in Biomolecular Engineering
Biol 432	Immunology
Plsc 440	Advanced Lab Techniques
Plsc 476	Cell Biology
Plsc 488	Genetic Engineering