

BA or BS in Biology Planning Sheet - Catalog Year 2006/2007

This planning sheet shows just 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, 210, 212, and 213.**

Course	Title (Prerequisites)	Credits
Freshman Year		
First Semester		
Biol 115	Cells and the Evolution of Life (pre or co req=Chem 111)	4
Chem 111	Principles of Chemistry I (SAT/ACT scores; HS chem. grade)	4
Engl 102	College Writing & Rhetoric (prereq=Engl 101 or equiv)	3
Core 103 – 119 (Choose only one)	Core Discovery course	4
Second Semester		
Biol 116	Organisms & Environments (prereq = Biol 115 and Chem 111)	4
Chem 112	Principles of Chemistry II (prereq=Chem 111)	5
Math 160 or 170 * see back of sheet	Survey of Calc or Calc I (prereq=SAT/ACT, COMPASS, or Math 143)	3
Core 153 – 169 (only one)	Core Discovery course	3
Sophomore Year		
First Semester		
Biol 210	Genetics (prereq=Biol 115)	4
Biol 212 (could delay this course until junior year and take university core course)	Molecular and Cellular Biology (prereq=Biol 115)	4
Chem 275/276 or 277/278	Carbon Cpds. & lab (prereq=Chem 101 or 111) or Organic Chem I & lab (prereq=Chem 112)	4
Stat 251	Statistical Methods (prereq=Math 143 or 160 or 170)	3
Second Semester		
Biol 213	Principles of Biological Structure and Function (prereq=Biol 115 & 116)	4
Biol 314	Ecology and Population Biology (prereq=Biol 115 & 116; Math 143 or 160 or 170) (Biol 210 recommended)	4
University Core electives		6-9
Junior Year		
First Semester		
MABB 380 or 300	Intro. Biochem (prereq=Chem 111 & 277) or Survey of Biochem (prereq=Chem 111; coreq=Chem 275 or 277)	4 or 3
Phys 111	General Physics I (prereq=Math 143)	4
Biol 421	Advanced Evolutionary Biology	3
University Core elective		3
Approved Biology Electives (see back of sheet) or upper division electives or courses to satisfy B.A./B.S. requirements**		3
Second Semester		
University Core elective		3
Phys 112	General Physics II (prereq=Phys 111)	4
Approved Biology Electives or upper division electives or courses to satisfy B.A./B.S. requirements**		8-10
Senior Year		
First Semester		
Approved Biology Electives or upper division electives or courses to satisfy B.A./B.S. requirements**		16
Second Semester		
Biol 411	Senior Capstone (prereq=Biol 210, 212, 213, 314 & senior standing)	2
Approved Biology Electives or upper division electives or courses to satisfy B.A./B.S. requirements**		14-16

Total credits must equal minimum of 128. (This is an **average** of 16 credits completed per semester.)

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

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

****B.A./B.S. requirements:**

- BA – 6 cr in Humanities in addition to the minimum required for university core
3 cr in Social Science in addition to the minimum required for university core
Equivalent of 16 credits in foreign language

- BS - 3 cr in Humanities in addition to the minimum required for university core
3 cr in Social Sciences in addition to the minimum required for university core.
6 cr in Nat Sci, Math, Stats – Requirement is met by the courses required for a Biology degree
OR
Completion of a minor

***Note: Students considering graduate school in biology are strongly encouraged to take Chem 277/278 Organic Chemistry I and lab, and MMBB 380 Intro. Biochemistry)**

Select 9 credits of approved electives from the following list (categories are intended only as a guide for student and adviser use):

Natural History

Biol 341 Systematic Botany
Biol 478 Animal Behavior
Biol 481 Ichthyology
Biol 483 Mammalogy
Biol 484 Invertebrate Zoology
Ent 440 Insect Identification
WLF 482 Ornithology

Anatomy/Physiology

Biol 311 Plant Physiology
Biol 324 Comparative Vertebrate Anatomy
Biol 423 Comparative Vertebrate Physiology
Biol 450 Comparative Vertebrate Reproduction
Ent 484 Insect Anatomy and Physiology
MMBB 460 Microbial Physiology
PISc 415 Plant Pathology

Quantitative/Integrative Biology

Biol 425 ST: Experimental Field Ecology
Biol 448 Plant-Animal Interactions
Ent 441 Insect Ecology
Math 437 Mathematical Biology
MMBB 425 Microbial Ecology
WLF 440 Conservation Biology
WLF 448 Fish and Wildlife Population Ecology

Molecular/Cellular/Developmental (MCD) Biology

Biol 354 Experimental Approaches in the Biological Sciences
Biol 444 Genomics
Biol 461 Neurobiology
Biol 474 Principles of Developmental Biology
MMBB 409 Immunology
MMBB 440 Advanced Lab Techniques
MMBB 475 Molecular Biology of the Cell
MMBB 488 Genetic Engineering

In addition to the above electives, Biology majors are encouraged to enroll in at least 3 credits of coursework that emphasizes social, political or philosophical aspects of biology.