

BA or BS in Biology

Planning Sheet - Catalog Year 2007/2008

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, 210, 212 and 213.**

| Freshman Year | | |
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| Fall Semester | | |
| Biol 115 | Cells and the Evolution of Life (pre or co-req=Chem 111) | 4 cr |
| Chem 111 | Principles of Chemistry I (SAT/ACT/COMPASS scores; HS chem grade) | 4 cr |
| Engl 102 | College Writing & Rhetoric (prereq=Engl 101 or equiv) | 3 cr |
| Core Discovery course | Student's choice of Core Discovery course | 4 cr |
| | | 15 cr |
| Spring Semester | | |
| Biol 116 | Organisms and Environments (prereq=Biol 115 and Chem 111) | 4 cr |
| Chem 112 | Principles of Chemistry II (prereq=Chem 111) | 5 cr |
| Math 160 or 170 | Survey of Calc or Calc I (prereq=SAT/ACT, COMPASS or Math 143) | 3 cr |
| Core Discovery course | Student's choice of Core Discovery course | 3 cr |
| | | 15 cr |
| Sophomore Year | | |
| Fall Semester | | |
| Biol 210 | Genetics (prereq=Biol 115) | 4 cr |
| Biol 212 | Molecular and Cellular Biology (prereq=Biol 115) | 4 cr |
| Chem 275/276 or 277/278 | Carbon Cpds. & lab (preq=Chem 111) or Organic Chem I & lab (prereq=Chem 112) | 4 cr |
| Stat 251 | Statistical Methods (prereq=Math 143 or 160 or 170) | 3 cr |
| | | 15 cr |
| Spring Semester | | |
| Biol 213 | Principles of Biological Struc & Func (prereq=Biol 115 and 116) | 4 cr |
| Biol 314 | Ecology and Pop Biology (prereq=Biol 115 & 116; Math 143 or 160 or 170) (Biol 210 recommended) | 4 cr |
| University Core or Updv biology | May also choose to take course to satisfy BA/BS requirements | 7-9 cr |
| | | 15 - 17 cr |
| Junior Year | | |
| Fall Semester | | |
| MABB 300 or 380 | Survey of Biochem (prereq=Chem 111; co-req=Chem 275 or 277) or Intro Biochem (prereq=Chem 111 and 277) | 3 or 4 cr |
| Phys 111 | General Physics I & lab (prereq=Math 143) | 4 cr |
| Biol 421 | Advanced Evolutionary Biology (prereq=Biol 314) | 3 cr |
| University Core elective | | 3 cr |
| Approved elective | Upper division biology elective or BA/BS course or other upper division | 3 cr |
| | | 16 - 17 cr |
| Spring Semester | | |
| Phys 112 | General Physics II & lab (prereq=Phys 111) | 4 cr |
| University 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 | | |
| University 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 | 13 - 15 cr |
| | | 16 - 18 cr |
| Spring Semester | | |
| Biol 411 | Capstone Seminar (prereqs=Biol 210, 212, 213, 314, and senior standing) | 2 cr |
| Approved electives | Upper division biology elective or BA/BS course or other upper division | 14 - 16 cr |
| | | 16 - 18 cr |
| Total must equal a minimum of: | | 128 cr |
| You must complete an average of 16 credits per semester to finish in four years. | | |

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**.

BA/BS requirements:

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| BA | 6 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 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.

Natural History

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| 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 WS324 | 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

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| 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

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| 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 |