

## BIOLOGY MAJOR (New for 2009-2011 Catalog)

Beginning Fall 2009, Biology majors can choose an emphasis area. These emphases will equip students earning the biology degree to find employment or gain entrance into graduate or professional programs in their areas of interest. The General Biology Emphasis allows those students unsure of their direction to complete a more generic biology major.

A student majoring in Biology may declare any two Biology emphasis areas.

### Major in Biology

#### Required core courses for all Biology majors: 18 hours

BIO 114 Zoology (F)	4
BIO 124 Botany (S)	4
BIO 444 Genetics (S)	4
BIO 352 Research I (S)	2
BIO 442 Research II (F)	2
BIO 452 Research III (S)	2

#### Required collateral core course for all Biology majors: 4 hours

CHE 114 General Chemistry I (F)	4
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#### General Education course specified for all Biology majors

MAT 133 College Algebra	
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### Human Biology Emphasis

#### Required major courses: 37-38 hours

BIO core courses	18
BIO 144 Human Anatomy (F)	4
BIO 304 Microbiology (F-O)	4
BIO 384 Cell Biology (S)	4
BIO 434 Vertebrate Physiology (F-O)	4
ONE OF THE FOLLOWING:	3 – 4
Upper Division Biology Elective OR	
CHE 424 Biochemistry (F-O)	

#### Required collateral Courses: 16-18 hours

Collateral Core course (CHE 114)	4
CHE 124 General Chemistry II (S)	4
Two of the following:	8-10
PHY 214 College Physics I (F-E) or	
PHY 225 General Physics I (F-O)	
PHY 224 College Physics II (S-O) or	
PHY 235 General Physics II (S-E)	
CHE 215 Organic Chemistry I (F)	
CHE 225 Organic Chemistry II (S)	
CHE 424 Biochemistry (if not used above) (F-O)	
MAT 133 College Algebra (Specified General Education)	

### Molecular Biology Emphasis

#### Required major courses: 33 hours

BIO core courses	18
BIO 304 Microbiology (F-O)	4
BIO 323 Evolutionary Biology (S-E)	3
BIO 384 Cell Biology (S)	4
BIO 434 Vertebrate Physiology (F-O)	4

<b>Required collateral Courses:</b> 25 hours	
Collateral Core course (CHE 114)	4
CHE 124 General Chemistry II (S)	4
CHE 215 Organic Chemistry I (F)	5
CHE 424 Biochemistry (F-O)	4
PHY 214 College Physics I (F-E)	4
PHY 224 College Physics II (S-O)	4
MAT 133 College Algebra (Specified General Education)	

<b>Recommended additional course:</b>	
CHE 225 Organic Chemistry II (S)	5

### Ecology and Field Biology Emphasis

<b>Required major courses:</b> 38 hours	
BIO core courses	18
BIO 314 Ecology (S)	4
BIO 334 Field Invertebrate Zoology (F-E)	4
BIO 344 Field Vertebrate Zoology (S-O)	4
BIO 354 Plant Taxonomy (F)	4
ONE OF THE FOLLOWING:	4
BIO 364 Principles of Wildlife Management (S-E)	
BIO/AGR 414 Fisheries & Aquaculture (F-O)	

<b>Required collateral Courses:</b> 17 hours	
Collateral Core course (CHE 114)	4
MAT 143 Statistics	3
AGH 153 Introduction to Forestry (F)	3
AGR 213 Soil Science (S)	3
ONE OF THE FOLLOWING:	4
CHE 124 General Chemistry II (S) OR	
CHE 234 Environmental Chemistry (S-O)	
MAT 133 College Algebra (Specified General Education)	

<b>Recommended additional courses:</b>	
CHE 215 Organic Chemistry I (F)	
CHE 424 Biochemistry (F-O)	

### General Biology Emphasis

<b>Required major courses:</b> 38 hours	
BIO core courses	18
BIO 304 Microbiology (F-O)	4
BIO 314 Ecology (S)	4
BIO 384 Cell Biology (S)	4
BIO 434 Vertebrate Physiology (F-O)	4
ONE OF THE FOLLOWING:	4
BIO 334 Field Invertebrate Zoology (F-E) OR	
BIO 344 Field Vertebrate Zoology (S-O) OR	
BIO 354 Plant Taxonomy (F) OR	
BIO/AGR 414 Fisheries & Aquaculture (F-O)	

<b>Required collateral Courses:</b> 17-18 hours	
Collateral Core course (CHE 114)	4
CHE 124 General Chemistry II (S)	4
CHE 215 Organic Chemistry I (F)	5
ONE OF THE FOLLOWING	4-5
PHY 214 College Physics I (F-E)	
PHY 225 General Physics I (F-O)	
MAT 133 College Algebra (Specified General Education)	

**Recommended additional courses:**

BIO 323 Evolutionary Biology (S-E)

PHY 224 College Physics II (S-O) **or** PHY 225 General Physics II (S-E)

CHE 424 Biochemistry (F-O)

MAT 143 Statistics

MAT 175 Calculus I (S)