

**BIOLOGY MAJOR WITH SECONDARY EDUCATION CERTIFICATION
(Revised February 2008)**

Major Sequence Requirements:

Freshman:

___ General Biology I w/lab (Biol 111-4 cr.)	___ General Biology II w/lab (Bio 112-4 cr.)
___ General Chemistry I w/lab (Chem 113-4 cr.)	___ General Chemistry II w/lab (Chem 114-4 cr.)
___ Intro to Statistics & Data Analysis (Math 128-4 cr.)	___ Calculus (Math 125 – 4 credits)
___ CARP 211 – Career Planning I (1 cr.)#	___ CARP 211 – Career Planning I (1 cr.)#

Sophomore:

___ Genetics w/lab (Biol 223-4 cr.)	___ Biochemistry w/lab (Biol 224-4 cr.)
___ Organic Chemistry I w/lab (Chem 241-4 cr.)	___ Organic Chemistry II w/lab (Chem 242-4 cr.)

Junior:

___ Biology Seminar (Biol 370-1 cr.)**	___ Biology Seminar (Biol 370-1 cr.)**
___ General Physics I w/lab (Phys 111-4 cr.)	___ General Physics II w/lab (Phys 112-4 cr.)
___ CARP 412 – Career Planning II (1 cr.)##	___ CARP 412 – Career Planning II (1 cr.)##

Senior:

___ Biological Research I (Biol 490-4 cr.)***	___ Biological Research I (Biol 490-4 cr.)***
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- # CARP 211 recommended (Fall or Spring semester of Freshman Year)
- ## CARP 412 recommended (Fall or Spring semester of Junior Year)
- ** Sophomore/Junior Diagnostic Project (Fall or Spring Semester of Junior Year)
- *** Senior Integrated Assessment (Fall or Spring Semester of Senior Year)

In addition to the major sequence requirements, a Biology major must also complete 4 courses, at least one course from each of three sub-discipline categories listed below. At least two of those courses, each from a different category, must include a laboratory component. A course may be used to satisfy a single requirement in only one category even though the course may be cross-listed in another category.

CATEGORY I: MOLECULAR/CELLULAR BIOLOGY

Biol 326	Immunology	4 credits
Biol 330	Evolutionary Analysis & Bioinformatics	3 credits
Biol 336	Cell Biology	4 credits
Biol 448	Microbiology	4 credits
Biol 450	Molecular Genetics (DNA Science)	4 credits*
Biol 451	Molecular Genetics (RNA Science)	4 credits*
Biol 452	Eukaryotic Molecular Biology	4 credits*

CATEGORY II: ORGANISMAL BIOLOGY

Biol 349	Animal Behavior	
Biol 350	Vertebrate Embryology	4 credits
Biol 355	Comparative Vertebrate Anatomy	4 credits
Biol 360	Histology	4 credits
Biol 430	Ecosystems Biology	4 credits
Biol 447	Physiology	4 credits

CATEGORY III: POPULATION BIOLOGY

Biol 310	Computer Modeling in Biology & Environmental Science	3 credits
Biol 330	Evolutionary Analysis & Bioinformatics	3 credits
Biol 349	Animal Behavior (cross listed as Neur 349)	4 credits
Biol 401(A-D)	Special Topics	3 or 4 credits
Biol 410	Ecological/Environmental Sampling/Analysis (cross listed as Enst 410)	3 credits
Biol 430	Ecosystems Biology	4 credits

PROFESSIONAL EDUCATION REQUIREMENTS

___ Foundations of Education (Educ 201) Fall or Spring Semester	3 credits
___ Educational Psychology I(Educ 210)*	3 credits
___ Educational Psychology II (Educ 211)	3 credits
___ Computer Applications for Educators (Educ 251)	3 credits
___ Early Field Experience (Educ 266) Fall & Spring Sem	1 credit
___ Teaching the Exceptional Child (Educ 325)	3 credits
___ Classroom Management (Educ 350)	3 credits
___ Methods for Teaching Diverse Secondary Students (Educ 366)	3 credits

*CORE 154 or General Psychology is a prerequisite.

PROFESSIONAL SEMESTER-REQUIREMENTS

___ Observation and Student Teaching (Educ 467)	10 credits
___ Student Teaching Seminar (Educ 468)	2 credits