

# Sonoma State University Offers Seven Options Leading to a Bachelor Degree in Biology



### Required for All Biology Majors Common lower division core

Intro Cell Bio and Genetics	Biol 130
Biological Diversity and Ecology	Biol 131
General Chemistry	Chem 115A & 115B
Organic Chemistry	Chem 335A

21 units

### Required for All Biology Majors Common upper division core

Integrative Ecology and Evolution	Biol 320
Molecular, Cell Biology, and Physiology	Biol 321

Complete **ONE** course in Organismal/Diversity  
(List of courses to the right)

12 units

#### Organismal/Diversity Courses

Invertebrate Biology	Biol 322
Entomology	Biol 323
Vertebrate Biology	Biol 327
Plant Biology	Biol 329
General Bacteriology	Biol 340

### Bachelor of Arts

Elementary Applied Statistics	Math 165
<b>OR</b>	
Calculus I	Math 161
<b>OR</b>	
Physics Lecture and Lab	Phys 210A & 209A
<b>OR</b>	
Geology	Geol 102

7-8 units

### Bachelor of Science

Elementary Applied Statistics	Math 165
Calculus I	Math 161
Organic Chemistry	Chem 335B
Physics	Phys 210A & 210B
Physics Lab	Phys 209A

18 units

### Biology

20 units of upper division biology elective courses in consultation with your advisor

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### Biology

#### Zoology Concentration

One course representing invertebrate biology and one course representing vertebrate biology (8 units)

12 units of select upper division biology elective courses in consultation with your advisor

### Biology

24 units of upper division biology elective courses in consultation with your advisor

**Research Experience**  
3 units of research experience

### Biology

#### Marine Biology Concentration

Marine Biology (Biol 332)

21 units of select upper division biology elective courses in consultation with your advisor

**Research Experience**  
3 units of research experience

### Biology

#### Ecology and Evolutionary Biology Concentration

Ecology (Biol 333)  
Evolution (Biol 341)

16 units of select upper division biology elective courses in consultation with your advisor

**Research Experience**  
3 units of research experience

### Biology

#### Physiology Concentration

Take **ONE** of the following:  
Env. Phys (Biol 347)  
Plant Phys (Biol 348)  
Anim. Phys (Biol 349)

20 units of select upper division biology elective courses in consultation with your advisor

**Research Experience**  
3 units of research experience

### Biology

#### Molecular and Cell Biology Concentration

MCB Lab (Biol 325)  
Mol. Gen. (Biol 342)  
Cell Bio. (Biol 344)  
Biochem. (Chem 445 or 446)  
\*O. Chem Lab (336A)

10 units of select upper division biology elective courses in consultation with your advisor

**Research Experience**  
3 units of research experience

\* Denotes additional physical sciences units in the MCB concentration

This handout does not include general education requirements  
Biology (Biol) courses greater than 321 are upper division majors courses (except for Biol 398) that can be used as electives  
Research experience can be in the form of Biol 490, 494 or 496A&B

Updated: 5/17/17