

BACHELOR OF SCIENCE

Biology Major Courses 2019-2021

12 Courses; Minimum 30 credits; Minimum 22 credits from SU

Course Code	Course Name	Grade	Credit
BIO50-121	Investigation into Living Systems		
BIO50-123	Living Systems		
BIO50-131	Investigation in Genetics		
BIO50-133	Molecular & Population Genetics		
BIO50-222	Methods in Ecology/Evolutionary Biology		
BIO50-232	Methods in Cellular/Molecular Biology		

Biology Capstone Seminar

Select one of the two following options:

BIO50-97X	Research in Biology (3 total credits reqd)		
BIO50-991	Biology Capstone Seminar		

or

BIO50-994	Biology Capstone Seminar		
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Required Supporting Courses:

CHE51-103	General Chemistry I		
CHE51-101	Chemical Methods and Techniques Lab I		
CHE51-203	General Chemistry II		
CHE51-201	Chemical Methods and Techniques Lab II		
CHE51-314	Organic Chemistry I		
CHE51-311	Organic Chemistry I Lab		
CHE51-324	Organic Chemistry II		
CHE51-321	Organic Chemistry II Lab		
MAT52-114	Introduction to Statistics		
PHY53-154	Fundamentals of Physics I		
PHY53-164	Fundamentals of Physics II		

Take one of the following:

MAT52-154	Calculus I		
MAT52-164	Applied Multivariable Calculus I		

*Two courses from different depts in this section may be used in the E&B section

Take five 300+ level Biology courses (three of five must have labs)

Select one advanced cellular/molecular course from the following:

		Grade	Credit
BIO50-404	Cancer Biology (no lab)		
BIO50-464	Molecular Biology (lab)		
BIO50-484	Microbiology (lab)		
BIO50-494	Biology of Reproduction (no lab)		
BIO50-514	Cellular Physiology (lab)		
BIO50-534	Fundamentals of Immunology (no lab)		
CHE51-604	Principles of Biochemistry (no lab)**		
CHE51-624	General Biochemistry II (no lab)**		

**Must add separate lab course to make it a course w/ lab option.

Select one advanced ecology/evolution course from the following:

BIO50-314	Genetics (lab)		
BIO50-334	Evolutionary Biology (no lab)		
BIO50-374	Human Genetics and Evolution (no lab)		
BIO50-384	Conservation Biology (no lab)		
BIO50-434	Ecology (lab)		
BIO50-444	Invertebrate Ecology (lab)		
BIO50-474	Genetics, Genomics and Medicine (lab)		

Select three additional Biology courses (4 credits each) at 300-level or higher:

BIO50-XXX			
BIO50-XXX			
BIO50-XXX			

* Anatomy & Physiology I or II cannot be used to satisfy any Biology requirement.

General Education Requirements

At least 30 total credits required; minimum 3 credits per requirement.

General Education - Part I

Take one of the following first semester seminars:

UST05-014	First Year Seminar		
UST05-214	Advanced Entry Seminar		

Foreign Language (three semesters of the same language)

Social Justice Course (may double count with any requirement):

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Two Fitness/Recreational Activity courses (must be different topics):

General Education - Part II: Exploration & Breadth (6 total courses)

BIO50-XXX courses cannot be used to satisfy E&B requirements. Additionally, any other course contributing to Biology which is used to satisfy a Biology major requirement cannot be used in the E&B section.

Select one course from each of the four following areas:

Humanities:

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Natural Sciences:

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Social Sciences:

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Fine Arts:

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Select one additional course from TWO of the four areas: Humanities, Natural Science, Social Science and Fine Arts. Neither course may come from the department (3 digit prefix) used above. EX: If you took PSY33-104 Principles of Psychology as a social science, you may not select another PSY33-XXX course to apply in this section.

*Public Speaking, College Writing and Creative Writing courses may not count in E&B.

University Graduation Requirements:

- Minimum of 127 credits: _____
- Cumulative GPA > 2.0 _____
- GPA > 2.0 for Major and/or Areas of Concentration _____
- All grades C- or higher in major/minor/core? _____
- At least 64 credits completed at Southwestern _____
- No more than 56 credits of any 5 digit prefix _____
- Major credits completed (min 30 required) _____
- 60% of Major courses completed at Southwestern (22cr) _____
- Gen Ed has minimum of 30 credits _____

- Minor (optional):**
- Minimum 18 credits _____
- Minimum of 12 credits taken at Southwestern _____
- Minimum 2.0 minor courses CGPA _____
- Other:**
- Degree Audit Completed (Due one year before grad date) _____
- Grad Application Submitted (Due start of final semester) _____
- Approved to be part time in last semester? _____