

# BACHELOR OF ARTS

## Paired Major in Biology and Environmental Studies

Paired major in Biology and Env. Studies allows for double counting of two courses from the following options: BIO50-123/121, BIO50-384 and/or BIO50-434

**70 credit minimum - Paired major**

### Biology Major Courses

11 Courses; Minimum 19 credits from SU

Course #	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:**

		Grade	Credit
CHE51-101	Chemical Methods and Techniques Lab I		
CHE51-103	General Chemistry I		
CHE51-201	Chemical Methods and Techniques Lab II		
CHE51-203	General Chemistry II		
CHE51-311	Organic Chemistry I Lab		
CHE51-314	Organic Chemistry I		
MAT52-114	Introduction to Statistics		

\*MAT52-114 and one Chemistry course may be used to satisfy E&B requirements

#### **Take four 300+ level Biology courses (two of four must have labs)**

*Select one advanced cellular/molecular course from the following:*

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 two additional Biology courses (4 credits each) at 300-level or higher:*

BIO50-XXX			
BIO50-XXX			

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

## Environmental Studies Major Courses

9 Courses; 22 credits must be from SU

Course #	Course Name	Grade	Credit
ENV49-104	Introduction to Environmental Studies		
ENV49-204	Environmental GIS (Geographic Info Systems)		
ENV49-364	U.S. Environmental Policy		
ENV49-964	Capstone in Environmental Studies		

### Select two courses from the following Natural Sciences:

#### Biology:

BIO50-123/121	Living Systems/Invest. Living Systems		
BIO50-194	Science of Chocolate		
BIO50-384	Conservation Biology		
BIO50-434	Ecology*		

#### Chemistry:

CHE51-014	Chemistry Appreciation		
CHE51-024	Chemistry of the Environment		
CHE51-034	Chemistry of Food		
CHE51-103/101	General Chemistry I & Lab		
CHE51-504	Instrumentation in Environmental and Bio Analysis*		
CHE51-852	Advanced Lab in Analytical Chemistry		

#### Physics:

PHY53-034	Introduction to Earth Science		
PHY53-044	Introduction to Climate Science		
PHY53-354	Energy and the Environment		

\*CHE51-504 and BIO50-434 have prerequisites which do NOT count towards the ENV major

### Select one course on Environmental Justice:

#### Anthropology:

ANT35-254	Latinx Spiritualities		
ANT35-334	Global Environmental Justice		

#### Religion:

REL19-334	Apocalypse		
REL19-344	Animals and Religion		
REL19-374	Sacred Space and Environment		

\*\*Courses cannot double count for both Environmental Justice and Environmental Humanities

### Required Supporting Course:

MAT52-114	Introduction to Statistics		
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\*MAT52-114 may be used to satisfy an E&B requirement.

### Select one course in the Environmental Humanities:

#### Art History:

		Grade	Credit
ARH71-254	Landscape & Environment in Chinese Art		

#### Communication Studies:

COM75-464	Environmental Communication		
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#### German:

GER12-354	Contemporary German Culture		
GER12-714	Transnational Identity Narratives: Gender/Nature/ Culture		

#### History:

HIS16-014	Disease, Health and Medicine in World History		
HIS16-484	The History of the US West		

#### Philosophy:

PHI18-234	Environmental Philosophy		
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#### Religion:

REL19-334	Apocalypse		
REL19-344	Animals and Religion		
REL19-364	Pilgrimage		
REL19-374	Sacred Space and Environment		

\*\*Courses cannot double count for both Environmental Justice and Environmental Humanities

### Select one additional course from the ENV Justice/Humanities list or one of the following:

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### OR

#### Chinese:

CHI22-332	Intermediate/Advanced Modern Chinese		
CHI22-334	Intermediate/Advanced Modern Chinese		

#### Economics:

ECO31-324	Environmental Economics		
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#### Education:

EDU40-514	Teaching Science in the Elem/Middle Schools		
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#### Environmental Studies:

ENV49-464	Sustainable Cities		
ENV49-484	Sustainable Food and Agriculture		

#### Theatre:

THE72-814	Theatre Sustainability		
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\*\*Courses cannot double count for Environ. Justice or Environ. Humanities or the additional course

**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)**

Neither BIO50-XXX nor ENV49-XXX courses may be used to satisfy E&B requirements. Additionally, any other course contributing to Biology or Environmental Studies which is used to satisfy a 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 (19cr/19cr) \_\_\_\_\_
- 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? \_\_\_\_\_