

### General Education

#### Foundations: (12 Credits)

##### Oral Communication (3 Credits)

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##### Quantitative Reasoning (3 Credits)

- MATH 2320 Essentials of Calculus

##### Technological Literacy (3 Credits)

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##### Written Communication (3 Credits)

- ENGL 1200 College Composition

#### Discoveries: (Credits 27)

##### Art/Humanities (9 Credits)

- ENGL 2230 Writing and Natural Sciences

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##### Natural Sciences & Technology (9 Credits)

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##### Social Sciences (9 Credits)

- CHEM 1108 General Chemistry I

- PHYS 1500 General Physics I

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#### Wellness & Personal Health: (3 Credits)

- STAT 2020 Elements of Statistics

#### Competencies:

##### Applied Methodologies

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##### Ethical Reasoning

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##### Information Literacy

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##### Intercultural Fluency

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##### Keystone Experience

- BIOL 4480, BIOL 4951, BIOL 4985 or BIOL 4999

##### Quantitative Applications

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##### Writing Intensive

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### Program Requirements

#### Required Major Courses: (16 Credits)

- BIOL 1400 Intro to Ecology and Evolution
- BIOL 1700 Intro to Organismal Biology
- BIOL 1900 Intro to Cell and Molecular Biology
- BIOL 2202 Genetics

#### Major Electives: (21 Credits)

- One course in Cell and Molecular Bio Group A from list on next page
- One course in Cell and Molecular Bio Group B from list on next page
- One course in Organismal Biology from list on next page
- One course in Organismal Biology from list on next page
- One course in Ecology and Evolution from list on next page
- One course in Ecology and Evolution from list on next page
- One course in Research Design and Analysis: BIOL 4402 Biometry or BIOL 4484 Quant Methods in Aq Bio or BIOL 4570 Biological Study Design & Data Analysis or BIOL 4800 Vegetation Sample & Analysis or FWSC 4495 Applied Biological Methods and Science Communication.

#### Required Concentration Courses: (12 Credits)

- PHYS 1510 General Physics I Lab
- PHYS 1600 General Physics II Lecture
  - PHYS 1610 General Physics II Lab
- CHEM 1128 General Chemistry II
- CHEM 2200 Organic Chemistry I Lecture
  - CHEM 2205 Organic Chemistry I Lab

#### Major Electives: (11 Credits)

- Any 3000 or 4000 level BIOL and FWSC or CHEM 2250/2255 Organic Chemistry II or CHEM 4600/4605 Biochemistry and One or More of the Following: BIOL 4480 Topics in Field Biology or BIOL 4951 Internship in Biology or BIOL 4985 Biotechnology and DNA Methods or BIOL 4999 Research in Biology

#### Free Electives: (17 Credits)

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**Program Notes:** Upper level electives are offered on a rotating basis, so they will not all be available each semester.

**One Course in Cell and Molecular Bio Group A**

BIOL3326 General Microbiology  
 BIOL3330 Cell Biology  
 BIOL4260 Cell Physiology  
 BIOL4320 Molecular Biology

**One Course in Cell and Molecular Bio Group B**

BIOL3020 Histology  
 BIOL3700 Systems Neuroscience  
 BIOL4046 Pathogenic Microbiology  
 BIOL4050 Immunology  
 BIOL4250 Molec Mechanisms Micro Path  
 BIOL4270 Endocrinology  
 BIOL4300 Biology of Cancer  
 BIOL4310 Developmental Biology  
 BIOL4985 Biotechnology and DNA Methods

**Two Courses in Organismal Biology from list below**

BIOL 2810 Human Anatomy and Physiology I Lecture  
 BIOL 2811 Human Anatomy and Physiology I Lab  
 BIOL 3327 Parasitology  
 BIOL 3337 Ornithology  
 BIOL 3707 Plant Taxonomy  
 BIOL 3810 Human A&P II Lecture  
 BIOL 3811 Human A&P II Lab  
 BIOL 3820 Vertebrate Zoology  
 BIOL 3835 Plant Physiology  
 BIOL 4435 Ichthyology  
 BIOL 4442 Dendrology  
 BIOL 4700 Mycology  
 BIOL 4720 Biology of the Higher Inverts  
 BIOL 4740 Marine and Freshwater Invert  
 BIOL 4745 Entomology  
 BIOL 4750 Terrestrial Invertebrates  
 BIOL 4775 Mammalogy  
 BIOL 4810 Herpetology  
 BIOL 4850 Mammalian Reproductive Phys  
 BIOL 4860 Comparative Animal Phys  
 BIOL 4880 Pathophysiology  
 FWSC 4420 Prin of Wildlife Manag  
 FWSC 4425 Aquaculture

**Two Courses in Ecology and Evolution from list below**

BIOL 3335 Sustainable Agriculture  
 BIOL 3399 Conservation Biology  
 BIOL 3500 Comparative Vertebrate Anatomy  
 BIOL 3607 Plant Anatomy  
 BIOL 4414 Plant Ecology  
 BIOL 4421 Global Change Ecology  
 BIOL 4470 Field Zoology and Systematics  
 BIOL 4473 Freshwater Ecology  
 BIOL 4475 Wetlands Ecology  
 BIOL 4484 Quan Methods Aquatic Eco  
 BIOL 4550 Evolution  
 BIOL 4770 Forest Ecology and Management  
 BIOL 4992 Ethology  
 FWSC 4423 Wildlife Management Techniques  
 FWSC 4492 Animal Population Dynamics

**Suggested Four Year Course Sequence****Year 1****Fall Semester**

BIOL 1400 Ecology & Evolution  
 ENGL 1200 College Composition  
 CHEM 1108 General Chemistry I  
 Any Course

**Spring Semester**

BIOL 1700 Introduction to Organismal Biology  
 CHEM 1128 General Chemistry II  
 Social Science  
 Tech Literacy  
 Any Course

**Year 3****Fall Semester**

Ecology and Evolution Elective  
 BIOL 2202 Genetics or Organismal Biology Elective  
 PHYS 1500 General Physics I  
 PHYS 1510 General Physics I Laboratory  
 STAT 2020 Elements of Statistics

**Spring Semester**

Cell and Molec Group A  
 Major Elective  
 PHYS 1600 General Physics II  
 PHYS 1610 General Physics II Laboratory  
 Arts & Humanities

**Year 2****Fall Semester**

BIOL 1900 Intro to Cellular & Molecular Biology  
 CHEM 2200 Organic Chemistry I Lecture  
 CHEM 2205 Organic Chemistry I Laboratory  
 Any Course  
 Oral Communication

**Spring Semester**

BIOL 2202 Genetics or Organismal Biology Elective  
 MATH 2320 Essentials of Calculus  
 Social Science  
 Any Course  
 ENGL 2230 Writing and Natural Sciences

**Year 4****Fall Semester**

Cell and Molec Group B  
 Research Design and Analysis Elective  
 Social Science  
 Any Course  
 Any Course

**Spring Semester**

Organismal Biology Elective  
 Ecology and Evolution Elective  
 Natural Sciences & Tech  
 Any Course

