

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)

At least two (2) disciplines must be represented within each of the three (3) categories.

Art/Humanities (9 Credits)

☐ ENGL 2230 Writing and Natural Sciences

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Natural Sciences & Technology (9 Credits)

☐ Chem 1108 General Chemistry I

☐ PHYS 1500 General Physics I

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Social Sciences (9 Credits)

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Elective/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 - Two (2) courses are required

☐ BIOL Related Course

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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

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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

