“With the approval of the Biology Curriculum Committee, a maximum of 3 credits from BZ487V, BZ495V and/or BZ498V may be applied towards a student’s “SELECTED FIELD” requirement, if the Committee deems the experience appropriate in content for the Selected Field.” Students must complete 12 credits in one of the following “Selected Fields”, as well as a minimum of 6 credits in two additional fields.

PRE-HEALTH BIOLOGY

Students who select this field must take one of the following two classes:

* BMS300(4) Principles of Human Physiology
  -OR-
* BMS360(4) Fundamentals of Physiology

PRE-HEALTH BIOLOGY

Students who select this field must take one of the following two classes:

* BMS300(4) Principles of Human Physiology
  -OR-
* BMS360(4) Fundamentals of Physiology
<table>
<thead>
<tr>
<th>CELLULAR, MOLECULAR &amp; GENETIC BIOLOGY</th>
<th>EVOLUTION, GENETICS &amp; SYSTEMATICS</th>
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<tbody>
<tr>
<td>ANEQ330(3) Principles of Animal Breeding</td>
<td>ANTH373(3) Human Evolution</td>
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<td>BC353(4) Pre-Health Genetics</td>
<td>ANTH374(3) Human Biological Variation</td>
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<td>BC401(3) Comprehensive Biochemistry I</td>
<td>BC463(3) Molecular Genetics</td>
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<td>BC403(3) Comprehensive Biochemistry II</td>
<td>BSPM302(2) Applied and General Entomology</td>
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<td>BC463(3) Molecular Genetics</td>
<td>BSPM303A(2) Entomology Lab: General</td>
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<td>BMS325(3) Cellular Neurobiology</td>
<td>BSPM423(3) Evolution and Classification of Insects</td>
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<td>BMS330(4) Microscopic Anatomy</td>
<td>BZ300(3) Animal Behavior</td>
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<td>BMS405(3) Nerve and Muscle-Toxins, Trauma and Disease</td>
<td>BZ325(4) Plant Systematics</td>
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<td>BZ331(4) Developmental Plant Anatomy</td>
<td>BZ329(3) Herpetology</td>
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<td>BZ360(3) Bioinformatics and Genomics</td>
<td>BZ330(3) Mammalogy</td>
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<td>BZ420(3) Evolutionary Medicine</td>
<td>BZ332(4) Introductory Phycology</td>
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<td>BZ425(3) Molecular Ecology</td>
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<td>BZ335(3) Ornithology</td>
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<td>BZ455(3) Human Heredity and Birth Defects</td>
<td>BZ338(4) Comp. Morph. of Vasc. Plants</td>
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<td>BZ460(4) Genome Evolution</td>
<td>BZ/MATH348(4) Theory of Pop. &amp; Evol. Ecology</td>
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<td>BZ476(3) Genetics of Model Organisms</td>
<td>BZ349(3) Tropical Ecology and Evolution</td>
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<tr>
<td>BZ570(3) Molecular Aspects of Plant Development</td>
<td>BZ360(3) Bioinformatics and Genomics</td>
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<td>BZ/MIP577(2) Computer Analysis in Population Genetics</td>
<td>BZ418(4) Ecology of Infectious Diseases</td>
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<td>BZ/MIP578(4) Genetics of Natural Populations</td>
<td>BZ420(3) Evolutionary Medicine</td>
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<td>HORT/SOCR460(3) Plant Breeding</td>
<td>BZ/BSPM424(3) Principles of Systematic Zoology</td>
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<td>MIP300(3) General Microbiology</td>
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<td>MIP342(4) Immunology</td>
<td>BZ433(4) Behavioral Genetics</td>
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<tr>
<td>MIP343(2) Immunology Lab</td>
<td>BZ449A(4) Ecology, Evolution &amp; Conservation of Ecuadorian Biodiversity</td>
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<td>MIP450(3) Microbial Genetics</td>
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<td>BZ/BSPM/MIP462(5) Parasitology and Vector Biology</td>
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<td>BZ/MIP577(2) Computer Analysis in Population Genetics</td>
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<td>BZ/MIP578(4) Genetics of Natural Populations</td>
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<td>ERHS332(3) Principles of Epidemiology</td>
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<tr>
<td>FW300(2) Biology and Diversity of Fishes</td>
<td>FW301(1) Ichthyology Lab</td>
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<td>GEOL342(3) Paleontology</td>
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<td>MIP300(3) General Microbiology</td>
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<td>MIP450(3) Microbial Genetics</td>
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INTEGRATIVE ORGANISMAL BIOLOGY

Students who select this field must include at least one course from each of the following lists:

List A (Botany):
- BZ223 (3) Plant Identification
- BZ325 (4) Plant Systematics
- BZ331 (4) Developmental Plant Anatomy
- BZ332 (4) Introductory Phycology
- BZ333 (4) Introductory Mycology
- BZ338 (4) Comp. Morph. of Vasc. Plants
- BZ360 (3) Bioinformatics and Genomics
- BZ440 (3) Plant Physiology
- BZ441 (2) Plant Physiology Lab
- BZ450 (4) Plant Ecology
- BZ476 (3) Genetics of Model Organisms
- BZ561 (3) Landscape Ecology
- BZ570 (3) Molecular Aspects of Plant Development
- BZ572 (3) Phytoremediation

List B (Zoology):
- BSPM302 (2) Applied and General Entomology
- BSPM303A (2) Entomology Lab: General
- BZ212 (4) Animal Biology - Invertebrates
- BZ214 (4) Animal Biology - Vertebrates
- BZ300 (3) Animal Behavior
- BZ329 (3) Herpetology
- BZ330 (3) Mammalogy
- BZ332 (4) Introductory Phycology
- BZ333 (4) Introductory Mycology
- BZ335 (3) Ornithology
- BZ338 (4) Comp. Morph. of Vasc. Plants
- FW300 (2) Biology and Diversity of Fishes
- MIP300 (3) General Microbiology

ECOLOGY

Students who select this field must complete one class from List A below; Classes in List B must be used to fulfill the remainder of the 12 credits:

List A:
- BSPM302 (2) Applied and General Entomology
- BZ325 (4) Plant Systematics
- BZ332 (4) Introductory Phycology
- BZ333 (4) Introductory Mycology
- FW300 (2) Biology and Diversity of Fishes

List B:
- ANTH370 (3) Primate Behavior and Ecology
- BZ/MATH348 (4) Theory of Pop. & Evol. Ecology
- BZ349 (3) Tropical Ecology and Evolution
- BZ415 (4) Marine Biology
- BZ418 (4) Ecology of Infectious Diseases
- BZ430 (3) Animal Behavior and Conservation
- BZ449A (4) Ecology, Evolution & Conservation of Ecuadorian Biodiversity
- BZ450 (4) Plant Ecology
- BZ466 (4) Biological Basis of Animal Behavior
- BZ471 (3) Stream Biology and Ecology
- BZ472 (1) Stream Biology and Ecology Lab
- BZ505 (3) Cognitive Ecology
- BZ510 (3) Zoophysiological Ecology
- BZ535 (3) Behavioral Ecology
- BZ561 (3) Landscape Ecology
- BZ572 (3) Phytoremediation
- ERHS332 (3) Principles of Epidemiology
- F311 (3) Forest Ecology
- FW400 (3) Cons. of Fish in Aquatic Ecosystems
- MIP302 (3) Microbial Ecology
- MIP433 (1) Microbial Ecology Lab
- NR370 (3) Coastal Environmental Ecology
- RS331 (3) Wildland Plants & Plant Communities
- RS351 (3) Wildland Ecosystems in a Changing World
- RS478 (3) Ecological Restoration
**MICROBIOLOGY**

- BSPM361(3) Elements of Plant Pathology
- BZ332(4) Introductory Phycology
- BZ333(4) Introductory Mycology
- BZ418(4) Ecology of Infectious Diseases
- BZ420(3) Evolutionary Medicine
- BZ/BSPM/MIP462(5) Parasitology and Vector Biology
- BZ537(3) Topics in Mycology
- BZ/MIP577(2) Computer Analysis in Population Genetics
- BZ/MIP578(4) Genetics of Natural Populations
- MIP300(3) General Microbiology
- MIP302(2) General Microbiology Lab
- MIP303(1) General Microbiology – Honors Recitation
- MIP315(3) Human and Animal Disease
- MIP334(3) Food Microbiology
- MIP335(2) Food Microbiology Lab
- MIP342(4) Immunology
- MIP343(2) Immunology Lab
- MIP351(3) Medical Bacteriology
- MIP352(3) Medical Bacteriology Lab
- MIP420(4) Medical and Molecular Virology
- MIP425(2) Virology and Cell Culture Laboratory
- MIP432(3) Microbial Ecology
- MIP433(1) Microbial Ecology Lab
- MIP436(4) Industrial Microbiology
- MIP443(4) Microbial Physiology
- MIP450(3) Microbial Genetics
- SOCR455(3) Soil Microbiology
- SOCR456(1) Soil Microbiology Lab

**AQUATIC BIOLOGY**

- BSPM445(4) Aquatic Insects
- BZ332(4) Introductory Phycology
- BZ415(4) Marine Biology
- BZ471(3) Stream Biology and Ecology
- BZ472(1) Stream Biology and Ecology Lab
- BZ474(3) Limnology
- BZ515(3) Physiological Ecology of Marine Vertebrates
- FW300(2) Biology and Diversity of Fishes
- FW301(1) Ichthyology Lab
- FW400(3) Cons. of Fish in Aquatic Ecosystems
- FW405(3) Fish Physiology
- NR370(3) Coastal Environmental Ecology

**BEHAVIORAL BIOLOGY**

Students who select this field must take:
- BMS325(3) Cellular Neurobiology
- BZ300(3) Animal Behavior

-AND-

**SELF DESIGNATED FIELD**

A student may define their own selected field with the approval of the Biology Department Curriculum Committee. Students should consult with their advisor to develop a proposal for a self-designated field. Include a description of the field of interest, the student's rationale for wishing to pursue a self-designated field, and a list of relevant classes (totaling 12 credits). Included courses must be upper-division classes that are primarily biological in content. A student's request for a self-designated field must be submitted to the Biology Curriculum Committee for approval before the end of the sophomore year.