“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.

**ANATOMY/PHYSIOLOGY**

Students selecting this field must take one of the following three classes:

- **BMS300**(4) Principles of Human Physiology **or**
- **BMS360**(4) Fundamentals of Physiology **or**
- **BZ440**(3) Plant Physiology

("Note: If either BMS300 or BMS360 is taken, only one of these 2 classes may be used to fulfill the 12-credit requirement in this field.)

All BMS courses numbered 300 and above except BMS310, BMS380, BMS381, BMS384, BMS480, BMS481 and BMS495.

- ANEQ310(3) Animal Reproduction
- BMS301(5) Human Gross Anatomy
- BMS305(4) Domestic Animal Gross Anatomy (formerly AY231)
- BSPM525(3) Insect Physiology
- BZ331(4) Developmental Anatomy
- BZ401(3) Comparative Animal Physiology
- BZ403(3) Comparative Endocrinology (*CNO)
- BZ440(3) Plant Physiology
- BZ441(2) Plant Physiology Lab
- ERHS300(3) Intro to Radiation Biology
- F510(3) Ecophysiology of Trees
- FSHN350(3) Human Nutrition
- FW405(3) Fish Physiology
- HES403(4) Physiology of Exercise
- MIP315(3) Human & Animal Disease
- MIP342(4) Immunology
- MIP343(2) Immunology Lab
- PSY454A,B(3) Biological Psychology
- PSY455A,B(2) Biological Psychology Lab
- VS331(4) Histology (on line)
- VZ333(4) Domestic Animal Anatomy

**AQUATIC BIOLOGY**

- BSPM445(4) Aquatic Insects
- BZ321(3) Aquatic Vascular Plants (*CNO)
- BZ332(4) Introductory Phycology
- BZ415(3) Marine Biology
- BZ471(3) Stream Biology & Ecology
- BZ472(1) Stream Biology & Eco Lab
- BZ474(3) Limnology
- FW300(2) Ichthyology
- FW301(1) Ichthyology Lab
- FW400(3) Cons. of Fish in Aquatic Ecosystems
- FW540(4) Fisheries Ecology
- FW544(3) Ecotoxicology

Students are encouraged to consult with their advisor regarding field station classes that may be used to fulfill course requirements in this field.

**BEHAVIORAL BIOLOGY**

Students selecting this field must take BMS325 Cellular Neurobiology and BZ300 Animal Behavior, and complete 6 credits from the following:

- BSPM507(3) Insect Behavior
- BSPM570(3) Chemical Ecology
- BZ301(1) Animal Behavior Lab (*CNO)
- BZ430(4) Animal Behavior & Conservation
- BZ433(3) Behavioral Genetics
- BZ466(4) Biological basis of Animal Behavior
- BZ/V5479(3) Biology and Behavior of Dogs
- BZ535(3) Behavioral Ecology
- NB501(2) Cellular & Molecular Neurophysiology
- NB/CM502(2) Techniques in Molecular & Cellular Biology
- PSY352(3) Learning & Memory
- PSY454A(3) Biological Psychology
- PSY455B(2) Biological Psychology Lab

*CNO – currently not offered
CELLULAR, MOLECULAR & GENETIC BIOLOGY

ANEO330(3) Principles of Anim. Breeding
BC401(3) Compreh Biochemistry I
BC403(3) Compreh Biochemistry II
BC463(4) Molecular Genetics
BC511(3) Structural Biology I
BC513(1) Enzymology
BC517(2) Metabolism
BMS325(3) Cellular Neurobiology
BMS330(4) Microscopic Anatomy
BMS405 (3) (previously BMS365)
Nerve & Muscle-Toxins, Trauma & Disease

BC401(3) Compr eh Biochemistry I
BC403(3) Compreh Biochemistry II
BC463(4) Molecular Genetics
BC511(3) Structural Biology I
BC513(1) Enzymology
BC517(2) Metabolism
BMS325(3) Cellular Neurobiology
BMS330(4) Microscopic Anatomy
BMS405 (3) (previously BMS365)
Nerve & Muscle-Toxins, Trauma & Disease

BC401(3) Compreh Biochemistry I
BC403(3) Compreh Biochemistry II
BC463(4) Molecular Genetics
BC511(3) Structural Biology I
BC513(1) Enzymology
BC517(2) Metabolism
BMS325(3) Cellular Neurobiology
BMS330(4) Microscopic Anatomy
BMS405 (3) (previously BMS365)
Nerve & Muscle-Toxins, Trauma & Disease

BZ346(3) Population & Evol. Genetics
BZ402(4) Molecular Cytogenics
BZ403(3) Comp. Endocrinology
BZ425(3) Molecular Ecology
BZ433(3) Behavioral Genetics
BZ455(3) Human Heredity & Birth Defects
BZ460(4) Genome Evolution
BZ476(3) Topics in Advanced Genetics
BZ570(3) Molecular Aspects of Plant

BZ/MIP577(1) Computer Analysis in Population
Genetics
BZ/MIP578(4) Genetics of Nat.Populations
CM501(4) Advanced Cell Biology
HORT/SOCR460(3) Plant Breeding
HORT575(2) Plant Germplasm Conservation
MIP300(3) General Microbiology
MIP302(2) Gen Microbiology Lab
MIP342(4) Immunology
MIP343(2) Immunology Lab
MIP450(3) Microbial Genetics
MIP550(3) Microbial & Molec. Genetics Lab
NB501(2) Cellular & Molecular Neurophysiology
NB/CM502(2) Techniques in Molecular &
Cellular Biology
NB503(3) Developmental Neurobiology
VS331(4) Histology (on line)

ECOLOGY

Students selecting 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&General Entomology
BZ325(4) Plant Systematics
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) Ichthyology
FW301(1) Ichthyology Lab
MIP300(3) Microbiology
MIP302(2) Gen Microbiology Lab

List B:
ANTH370(3) Primate Behavior & Ecol.
BSPM570(3) Chemical Ecology
BZ/MATH348(3) Theory of Pop. & Evol. Eco
BZ349 (3) Tropical Ecology & Evolution
BZ/NR353 (3) Global Change Ecology
Impacts & Mitigation
BZ415(3) Marine Biology
BZ425(3) Molecular Ecology
BZ430 (4) Animal Behavior & Conservation
BZ450(4) Plant Ecology
BZ471(3) Stream Biology & Ecology
BZ472(1) Stream Biology&Ecology Lab
BZ474(3) Limnology
BZ510(3) Zoophysiological Ecology
BZ535(3) Behavioral Ecology
BZ561(3) Landscape Ecology
BZ572(3) Phytoremediation
ERHS332(3) Principles of Epidemiology
ERHS532(3) Epidemiologic Methods
F311(3) Forest Ecology
FW400(3) Cons. of Fish in Aquatic Ecosystems
FW544(3) Ecotoxicology
ERHS570(2) Radioecology
RS331(3) Wildland Plants & Plant Communities
RS351 (3) Wildland Ecosystems in a Changing
World
RS478(3) Ecological Restoration

Students are encouraged to consult with their advisor
regarding field station classes that may be used to fulfill
course requirements in this field.

*CNO – currently not offered
Students selecting this field must take:

BZ346(3) Population & Evol. Genetics,

and either

BZ325 Plant Systematics or

BSPM/BZ424 Systematic Zoology, and complete

the remainder of their 12 credits from the following courses:

ANTH373(3) Human Evolution
ANTH374(3) Human Biological Variation
BC463(4) Molecular Genetics
BSPM302(2) Applied & Gen. Entomology
BSPM303A(2) Entomology Laboratory
BSPM423(4) Evol. & Class. of Insects
BSPM/BZ/MIP462(5) Parasitology & Vector Bio
BSPM507(3) Insect Behavior
BSPM/BZ520(3) Advanced Systematics
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. Pl.
BZ/MATH348(3) Theory of Pop. & Evol Eco
BZ349(3) Tropical Ecology & Evolution
BZ402(4) Molecular Cytogenetics
BZ425 Molecular Ecology
BZ433(3) Behavioral Genetics
BZ455(3) Human Heredity & Birth Defects
BZ460(4) Genome Evolution
BZ530(2) Ecol. Plant Morphology
BZ535(3) Behavioral Ecology
BZ/MIP577(1) Computer Analysis in Population Genetics
BZ/MIP578(4) Genetics of Natural Populations
FW300(2) Ichthyology
FW301(1) Ichthyology Lab
GEOL342(3) Paleontology
MIP300(3) Microbiology
MIP302(2) Gen Microbiology Lab
MIP450(3) Microbial Genetics
MIP550(3) Microbial & Molec Gen Lab
SOCR535(3) Orig & Evol of Cultv Plants

* CNO – currently not offered

MICROBIOLOGY

All MIP courses numbered 300 or above except MIP 315, MIP342, MIP343, MIP380, MIP381, MIP384, MIP480, MIP481 and MIP495.

BSPM361(3) Elements of Plant Pathology
BSPM550(3) Molecular Plant-Microbe Interactions
BZ332(4) Introductory Phycology
BZ333(4) Introductory Mycology
BZ537(3) Topics in Mycology
SOCR455(3) Soil Microbiology
SOCR456(1) Soil Microbiology Lab
INTEGRATIVE ORGANISMAL BIOLOGY

Students selecting this field must include in their 12 credits at least one course from each of the following lists:

List A (Botany):

- BZ223(3) Plant Identification
- BZ302(3) Poisonous Plants (*CNO)
- BZ321(3) Aquatic Vascular Plants (*CNO)
- BZ325(4) Plant Systematics
- BZ332(4) Introductory Phycology
- BZ333(4) Introductory Mycology
- BZ338(4) Comp. Morph. of Vasc. Pl.
- BZ450(4) Plant Ecology
- BZ572(3) Phytoremediation

List B (Zoology):

- BSPM302(2) Appld & Gen Entomology
- BSPM303A(2) Appld & Gen Entomology Lab
- BSPM/BZ424(3) Princ of Systematic Zoology
- BSPM/BZ/MIP462 (5) Parasitology & Vector Bio
- BZ212(4) Invertebrate Biology
- BZ214(4) Vertebrate Biology
- BZ300(3) Animal Behavior
- BZ329(3) Herpetology
- BZ330(3) Mammalogy
- BZ335(3) Ornithology
- BZ349(3) Tropical Ecology & Evolution
- BZ415(3) Marine Biology
- BZ430(4) Animal Behavior & Conservation
- BZ466(4) Biological Basis of Animal Behavior
- BZ471(3) Stream Biology & Ecology
- BZ472(1) Stream Biology & Ecology Lab
- BZ474(3) Limnology
- BZ/VS479 Biology and Behavior of Dogs
- FW300(2) Ichthyology
- FW301(1) Ichthyology Lab
- FW400(3) Fish Ecology
- GEOL342(3) Paleontology

SELF DESIGNATED FIELD

A student may, with the approval of their advisor and the Biology Curriculum Committee, define their own individual selected field. Students wishing to pursue this option should consult with their advisor to develop a proposal for a self-designated field. The proposal should include a description of the field of interest, the student's reasons or rationale for wishing to pursue a self-designated field, and a list of relevant classes (totaling 12 credits) to be completed. To be included, courses should be upper-division classes that are primarily biological in content. Once approved by the advisor, a student's request for a self-designated field must be submitted to the Biology Curriculum Committee for approval. The Curriculum Committee's approval for a self-designated field should be obtained before the end of the sophomore year.

Students are encouraged to consult with their advisor regarding field station classes that may be used to fulfill course requirements in this field.

*CNO – currently not offered