DEPARTMENT OF BIOLOGICAL SCIENCES
MINIMUM CRITERIA FOR TEACHING COURSES

BIO 1: Biodiversity, Evolution & Ecology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Upper Division Coursework/experience in the following disciplines:
- Ecology
- Evolutionary Biology
- Botany
- Zoology

BIO 2: Cells, Molecules & Genes
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Upper Division Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- Cell Physiology (Cell Biology)
- Genetics

BIO 7: Intro to the Sciences of Biology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- General Zoology
- General Botany
- Cell Physiology (Cell Biology)
- Genetics
- Evolution/Ecology/Behavior

BIO 9: Living World: Evolution, Ecology and Behavior
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
- Evolution
- Ecology
- Behavior

BIO 10: Basic Biological Concepts
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- General Zoology
- General Botany
- Cell Physiology (Cell Biology)
- Genetics
- Evolution/Ecology/Behavior

BIO 15L: Lab Investigations in Biology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- General Zoology
- General Botany
- Cell Physiology (Cell Biology)
- Genetics
- Evolution/Ecology/Behavior

BIO 20: Biology: A Human Perspective
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- General Zoology
- General Botany
- Cell Physiology (Cell Biology)
- Genetics
- Evolution/Ecology/Behavior

BIO 22: Introductory Human Anatomy
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Specialization in Anatomy or Physiology.
Coursework/experience in the following disciplines:
- Human Gross Anatomy
- Human Physiology

BIO 25: Human Anatomy and Physiology I
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Requirements and/or Preferences: Specialization in Anatomy or Physiology
Coursework/experience in the following disciplines:
- Human Gross Anatomy
- Human Physiology

BIO 26: Human Anatomy and Physiology II
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Requirements and/or Preferences: Specialization in Anatomy or Physiology
Coursework/experience in the following disciplines:
- Human Gross Anatomy
- Human Physiology

BIO 39: Microbiology for Allied Health Sciences
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Preference given to those with R.N. or MPH degrees.
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- Genetics

Graduate coursework/experience in the following discipline:
- Medical Microbiology and Immunology.

BIO 100: Introduction to Scientific Evaluation
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Experience conducting biology research using inferential and descriptive statistics
Coursework/experience in the following disciplines:
- Upper division (or graduate level) coursework in statistics.

BIO 102: Natural History of Plants
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Botany or a related field
Coursework/experience in the following disciplines:
- Plant Taxonomy
- Plant Ecology
- Field Experience in California Systematics

BIO 103: Plants and Civilization
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Botany or a related field
Coursework/experience in <u>one</u> of the following disciplines:

Economic Botany
Ethnobotany
Agriculture/Horticulture
Plant Taxonomy, Plant Ecology, or Plant Morphology/Anatomy

BIO 104: Physiology of Human Reproduction
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Requirements and/or Preferences: Specialization in Anatomy, Physiology, or Endocrinology
Coursework/experience in the following disciplines:
Chemistry through Biochemistry
Reproductive Physiology or Embryology
Endocrinology
Animal or Human Systemic Physiology
Human Anatomy strongly recommended

BIO 106: From Mendel to Molecules
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
Chemistry through Biochemistry
Botany
Zoology
Microbiology
Genetics
Molecular Biology/Cell Biology
Biochemistry

BIO 112: Plant Taxonomy
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Plant Systematics with field experience in Western U.S., preferably Central California plant taxonomy
Coursework/experience in the following disciplines:
Plant Taxonomy
Plant Ecology
Evolution

BIO 113: Evolution and Speciation in Flowering Plants
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate coursework in Plant Systematics and Evolution
Coursework/experience in at least two of the following disciplines:
Plant Systematics or Taxonomy
Plant Ecology
Evolution
Speciation

BIO 117: Field Botany and Vegetation Inventory
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
Ecology
Plant Systematics with training in the systematics of aquatic flowering plants, grasses, and composites
Vegetation survey methods

BIO 118: Natural Resource Conservation
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Recent professional experience in the discipline
Coursework/experience in the following disciplines:
Biological Conservation

BIO 120: The Biology of Aging
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Requirements and/or Preferences: Specialization in Anatomy, Physiology, or Endocrinology
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- Endocrinology
- Systemic Physiology

BIO 121: Cell Physiology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work and research experience in Cell Biology/ Cell Physiology
Coursework/experience in the following disciplines:
- Cell Biology/ Cell Physiology

BIO 122: Advanced Human Anatomy
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Requirements and/or Preferences: Specialization in Anatomy or Physiology, and a minimum of one year of graduate coursework in Gross Anatomy. Direct laboratory teaching experience in cadaveric anatomy is required.
Coursework/experience in the following disciplines:
- Human Gross Anatomy
- Human Physiology
- Cadaver-based Anatomy

BIO 123: Neuroanatomy
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Requirements and/or Preferences: Specialization in Anatomy or Physiology
Coursework/experience in the following disciplines:
- Human Gross Anatomy
- Human Physiology
- Neuroanatomy or Neurophysiology

BIO 124: Clinical Hematology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Licensed CLS or Licensed Specialist in Hematology
Coursework/experience in the following disciplines:
- Hematology
- Immunology
- Cell/Molecular Biology
- Genetics
- Human Anatomy/Physiology
- Chemistry through Biochemistry

BIO 125: Body Fluid Analysis
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Licensed CLS
Coursework/experience in the following disciplines:
- Hematology
- Human Anatomy/Physiology
- Chemistry through Biochemistry

BIO 126: Comp Vertebrate Morphology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Evolutionary Biology
Coursework/experience in the following disciplines:
- Vertebrate Anatomy
- Physiology
- Vertebrate Paleontology
- Mammalogy
- Evolution

BIO 127: Developmental Biology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
- Cell Physiology or Molecular Biology
- Vertebrate Embryology or Developmental Biology
- Systemic Physiology, Endocrinology, or Reproductive Physiology
- Human or Vertebrate Anatomy
- Genetics
- Biochemistry

BIO 130: Histology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
- Human or Vertebrate Anatomy
- Histology

BIO 131: Systemic Physiology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Requirements and/or Preferences: Specialization in Physiology
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- Human or Vertebrate Anatomy
- Animal or Human Systemic Physiology

BIO 131A: Advance Problems in Physiology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Specialization in Physiology
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- Human or Vertebrate Anatomy
- Animal or Human Systemic Physiology

BIO 132: Neurophysiology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program),
Additional Requirements and/or Preferences: Specialization in Anatomy or Physiology
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- Neurophysiology or Neuroscience
- Human or Vertebrate Anatomy
- Animal or Human Systemic Physiology

BIO 134: Medical Mycology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: a licensed CLS or Public Health Microbiologist
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry

Graduate coursework or post-baccalaureate experience in:
- General Microbiology
- Genetics
- Immunology
- Medical Mycology

BIO 139: General Microbiology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate coursework/experience in Microbiology
Coursework/experience in the following disciplines:
- Chemistry through Biochemistry
- Genetics

BIO 143: General Virology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
General Microbiology
Genetics
Molecular Biology/Cell Biology
Virology
Biochemistry

BIO 144: Pathogenic Bacteriology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Licensed CLS or Public Health Microbiologist
Coursework/experience in the following disciplines:
Chemistry through Biochemistry
Graduate Coursework or post-baccalaureate experience in:
General Microbiology
Genetics
Immunology
Pathogenic Bacteriology (Human)

BIO 145: Diversity of Microorganisms
Master's degree in Microbiology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate coursework/experience in Microbial Ecology
Coursework/experience in the following disciplines:
Chemistry through Biochemistry
Genetics

BIO 149A: Immunology & Serology Lecture
Master's degree in Immunology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate coursework/experience in Immunology
Coursework/experience in the following disciplines:
Chemistry through Biochemistry
Genetics

BIO 149B: Immunology & Serology Laboratory
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate coursework/experience in Immunology
Coursework/experience in the following disciplines:
Chemistry through Biochemistry
Genetics

BIO 150: Forensic Biology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Crime lab or research experience in forensic biology strongly preferred.
Preference given for coursework/experience in the following disciplines:
Chemistry through Biochemistry
Genetics
Coursework/experience in the following disciplines:
Genetics

BIO 151: Advanced Laboratory Techniques in Forensic Biology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Crime lab or research experience in forensic biology strongly preferred.
Preference given for coursework/experience in the following disciplines:
Chemistry through Biochemistry
Genetics
Coursework/experience in the following disciplines:
Genetics

BIO 152: Human Parasitology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Parasitology
Coursework/experience in the following disciplines:
- Parasitology
- Invertebrate Zoology
- General Physiology or Systemic Physiology
- One of the following: Human Anatomy, Comparative Vertebrate Anatomy, Vertebrate Anatomy

BIO 156: Food Microbiology
Master's degree in Microbiology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Graduate coursework/experience in the following discipline:
- Food Microbiology

BIO 157: General Entomology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Entomology
Coursework/experience in the following disciplines:
- Entomology
- General Physiology
- Invertebrate Zoology
- General Ecology
- Animal Behavior
- Evolution

BIO 160: General Ecology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Ecology
Coursework/experience in the following disciplines:
- Systematics of plants, animals, and/or invertebrates
- Ecology
- Statistics with biological applications

BIO 162: Ichthyology: The Study of Fishes
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in ichthyology
Coursework/experience in the following disciplines:
- Vertebrate Anatomy
- Physiology
- General Ecology
- Ichthyology
- Vertebrate Zoology or equivalent
- Evolution

BIO 164: Herpetology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Herpetology
Coursework/experience in the following disciplines:
- Vertebrate Anatomy
- Physiology
- General Ecology
- Herpetology
- Evolution or Vertebrate Paleontology

BIO 165: Vertebrate Natural History
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Vertebrate Biology
Coursework/experience in the following disciplines:

Animal Behavior
Physiology
General Ecology
Vertebrate Zoology or Vertebrate Anatomy
Evolution
Ichthyology or Herpetology
Ornithology or Mammalogy

BIO 166: Ornithology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Avian Biology or Physiology
Coursework/experience in the following disciplines:
Vertebrate Anatomy or Vertebrate Zoology
Physiology
General Ecology
Ornithology
Animal Behavior
Evolution

BIO 167: Biometrics
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Experience conducting biological research using inferential and descriptive statistics
Coursework/experience in the following disciplines:
Upper division (or graduate level) coursework in statistics.

BIO 168: Mammalogy
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Mammalogy
Coursework/experience in the following disciplines:
Vertebrate Anatomy
Physiology
General Ecology
Mammalogy
Animal Behavior
Evolution

BIO 169: Animal Behavior
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Animal Behavior
Coursework/experience in the following disciplines:
Vertebrate Anatomy
Physiology
General Ecology
Animal Behavior
Evolution

BIO 173: Principles of Fishery Biology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Fisheries Biology
Coursework/experience in the following disciplines:
Fisheries Biology or Applied Ecology
Fisheries Management
Ichthyology
Aquatic Ecology or Limnology
Biometrics or Biostatistics

BIO 179: Principles of Wildlife Management
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate work in Wildlife Management
Coursework/experience in the following disciplines:

Wildlife Biology/Management
Plant Ecology, Range Ecology, Landscape Ecology, or Conservation Biology
Plant Taxonomy
Advanced Animal Ecology, Population Dynamics, or Conservation Biology
Two of the following:
Ornithology
Biometrics
Mammalogy

BIO 180: Molecular Biology Lecture
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
General Microbiology
Genetics
Molecular Biology
Biochemistry

BIO 181: Molecular Biology Laboratory
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
General Microbiology
Genetics
Molecular Biology
Biochemistry
Recombinant DNA experience

BIO 183: Cancer Biology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
Cancer Biology
Eukaryotic Cell and Molecular Biology
Genetics
Biochemistry
Immunology

BIO 184: General Genetics
Master's degree in Genetics or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Graduate Coursework/experience in Genetics
Coursework/experience in the following disciplines preferred:
Plant Biology
Animal Biology
Microbial Biology
Ecology

BIO 185: Topics in Biology
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Two years work experience in a biotech company plus one publication in Cell and Molecular Biology or related area
Graduate coursework/experience in the following disciplines:
Cell Biology
Molecular Biology

BIO 186A: Cell and Molecular Biology Seminar
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
Cell and/or Molecular Biology

BIO 186B: Ecological and Environmental Issues Seminar
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences:
Coursework/experience in the following disciplines:
Ecology, Environmental Studies

BIO 188: Evolution
Master's degree in Biology or equivalent (completion of 30 semester units of graduate coursework in a doctoral program)
Additional Requirements and/or Preferences: Research and/or professional experience in Evolutionary Biology.
Coursework/experience in the following disciplines:
General Ecology
General Paleontology
Molecular and Population Genetics
Evolution
Biogeography (preferred, not required)
Biosystematics (preferred, not required)

BIO 214: Advanced Plant Ecology
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research/Professional experience in Ecology or Botany with emphasis in Ecology.
Coursework/experience in the following disciplines:

BIO 220: Introduction to Scientific Inquiry
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Experience mentoring Master of Science graduate students within the department of Biological Sciences.
Coursework/experience in the following disciplines:

BIO 221A: Cell and Molecular Methods and Techniques
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Molecular Biology, Genetics, Cell Biology or a closely related area
Coursework/experience in the following disciplines:
Biochemistry, Cell Biology and Microbiology
Graduate coursework/experience in the following disciplines:
Cellular & Molecular Biology

BIO 221B: Methods in Ecology, Evolution and Conservation
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Ecology, Botany or Zoology with emphasis in Ecology.
Coursework/experience in the following disciplines:
Systematics of plants, animals, and/or invertebrates
Ecology
Statistics with biological applications
Field research experience

BIO 222: Molecular Biology
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Molecular Biology, Genetics or a closely related area
Coursework/experience in the following disciplines:
Biochemistry, Cell Biology and Microbiology
Graduate coursework/experience in the following disciplines:
Molecular Genetics or Molecular Biology

BIO 223: Human Molecular Genetics
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: M.D./D.O. with expertise in Clinical Genetics. Research or work related experience in human genetics
Graduate coursework/experience in the following disciplines:
Human Genetics and Molecular Biology

BIO 224: Genomics
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Two years work experience in Genomics
Graduate coursework/experience in the following disciplines:
Genomics
Molecular Biology
Bioinformatics

BIO 233: Review of Human Gross Anatomy
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Specialization in Anatomy or Physiology and a minimum of one year of graduate coursework in Gross Anatomy. Direct laboratory teaching experience in cadaveric anatomy is required.
Coursework/experience in the following disciplines:
Human Gross Anatomy
Human Physiology
Cadaver-based Anatomy

BIO 245: Host/Pathogen Interactions
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Microbiology or Cell Biology
Graduate coursework/experience in the following discipline:
Host Pathogen Interactions (in any system, plant, animal, human)
Microbiology

BIO 247: Contemporary Topics in Immunology
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Immunology, Microbiology or Cell Biology
Graduate coursework/experience in the following discipline:
Immunology

BIO 260: Population & Community Ecology
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Ecology, Botany or Zoology with emphasis in Ecology.
Graduate coursework/experience in the following discipline:

BIO 269: Behavioral Ecology
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Behavioral Ecology
Graduate coursework/experience in the following disciplines:
Physiology
General Ecology
Animal Behavior
Behavioral Ecology or Sociobiology
Evolution

BIO 270: Conservation Policy & Administration
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Wildlife Management, Conservation Biology, Conservation Administration, Landscape Ecology, or L.L.D. in Environmental Law. Professional experience in
Conservation Administration required.
Graduate coursework/experience in the following disciplines:

BIO 273: Advanced Fishery Biology & Management
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Fisheries Biology.
Coursework/experience in the following disciplines:

- Ichthyology
- Freshwater Ecology or Marine Ecology
- Advanced Animal Ecology or population Dynamics
- Biometrics
- Principles of Fishery Biology
- Fishery Management

BIO 279: Conservation Biology & Wildlife Management
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Wildlife Management, Conservation Biology, or Landscape Ecology.
Graduate coursework/experience in at least two of the following areas:

- Evolution
- Conservation Genetics
- Conservation Biology
- Ecological Modeling
- Wildlife Management
- Monitoring Vertebrate Populations
- Habitat Assessment or GIS

BIO 282: Evolution
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Evolutionary Biology.
Coursework/experience in the following disciplines:

- General Ecology
- General Paleontology
- Molecular and Population Genetics
- Evolution
- Biogeography (preferred, not required)
- Biosystematics (preferred, not required)

BIO 283: Biogeography
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Ecology, Botany, or Zoology.
Evidence of professional or research experience in systematic or environmental zoology, botany, or oceanography with background in biological or systematic biogeography
Coursework/experience in the following disciplines:

- General Ecology
- General Paleontology or Historical Geology
- Evolution
- Biogeography
- Biosystematics

BIO 285: Topics In Biology
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in
Coursework/experience in the following disciplines:

BIO 292: Biological Concepts
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in the course discipline.
Coursework/experience in the following disciplines:

- evolution
- genetics
- molecular or cell biology,
- ecology, and

botanical and zoological diversity.

BIO 293: Removed from PT faculty list and taught only by FT

BIO 294A: Seminar in Botany
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Botany. Ph.D. in Botany or related area of Biology.
Coursework/experience in the following disciplines:

BIO 294F: Seminar in Zoology
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Zoology or related area of Biology.
Coursework/experience in the following disciplines:

BIO 294G: Seminar in Cell Biology
A Ph.D. in the Biological Sciences preferred and/or Master of Science in an appropriate sub-discipline.
Additional Requirements and/or Preferences: Research and/or professional experience in Cell Biology, Molecular Biology, Genetics, Microbiology, Developmental Biology, or Immunology
Coursework/experience in the following disciplines: