PBIO Major Requirements

Required Courses (32-34 hours)

**Required Core Courses** (18 hours)

BIOL 1108 - Principles of Biology II (3 hours) + BIOL 1108L - Principles of Biology II Laboratory (1 hour)

or

BIOL 2108H - Principles of Biology II (Honors) (3 hours) + BIOL 2108L - Principles of Biology II Laboratory (Honors) (1 hour)

or

PBIO 1220 - Organismal Plant Biology (3 hours) + PBIO 1220L - Organismal Plant Biology Laboratory (1 hour)

GENE 3000-3000D - Evolutionary Biology (4 hours)

GENE 3200-3200D - Genetics (4 hours)

HORT(CRSS) 4430/6430 - Plant Physiology (3 hours)

or

HORT(CRSS) 4430E/6430E - Plant Physiology (3 hours)

STAT 2000 - Introductory Statistics (4 hours)

or

STAT 2100H - Introduction to Statistics and Computing (Honors) (4 hours)

or

BIOS 2010-2010L - Elementary Biostatistics (4 hours)

**Select an Area of Emphasis**

I) Area of Emphasis: Plant Ecology and Environment (14-16 hours)

PBIO 3650-3650L - Plant Ecology (4 hours)

PBIO 4650/6650-4650L/6650L - Plant Taxonomy (4 hours)

Choose one course from the following:

BIOS 3000 - Intermediate Biostatistics for Public Health Sciences (3 hours)

GEOG 4370/6370-4370L/6370L - Geographic Information Science (3 hours)

HORT 4095/6095 - GPS/GIS Applications for Landscape Managers (3 hours)

PBIO 3660L - Plant Biology Intensive Laboratory (4 hours)

Choose one course from the following:

ANTH(BIOL)(ECOL)(ETH)(ENTO)(FANR)(GEOL)(PATH)(PBIO) 4261 - Museum of Natural History Internship (3 hours)

PBIO 4940 - Internship in Plant Biology (3-4 hours)

PBIO 4960 - Independent Research in Plant Biology (1-4 hours) (4 hours)

PBIO 4960H - Independent Research in Plant Biology (Honors) (1-4 hours)

II) Area of Emphasis: Plant Biotechnology and Bioinformatics (14-15 hours)

BCMB 3100 - Introductory Biochemistry and Molecular Biology (4 hours)

BTEC(BCMB)(PBIO) 4000L - Methods in Biotechnology (4 hours) or PBIO 3660L - Plant Biology Intensive Laboratory (4 hours)

PBIO(BINF) 4550/6550 - Bioinformatics Applications (3 hours)

Choose one course from the following:
PBIO 4940 - Internship in Plant Biology (3-4 hours)
PBIO 4960 - Independent Research in Plant Biology (1-4 hours) (4 hours)
PBIO 4960H - Independent Research in Plant Biology (Honors) (1-4 hours)

New Area of Emphasis (effective spring semester 2018)

III) Area of Emphasis: Plants and Microbes (14-16 hours)

PATH 3530-3530L – Introductory Plant Pathology (3 hours)
PATH 4150 - Plant Path undergrad seminar (1 hr)

Choose one course from the following:
PATH/PBIO 4200-4200L - Mycology (4 hours)
MIBO 3500 - Introductory Microbiology (3 hours)
MIBO 3500E - Introductory Microbiology, online (3 hours)

Choose one course from the following:
CRSS(MIBO) 4610-4610L - Soil Microbiology (4 hours)
PBIO 3650-3650L - Plant Ecology (4 hours)
PBIO 3660L - Plant Biology Intensive Laboratory (4 hours)

Choose one course from the following:
PBIO 4940 - Internship in Plant Biology (3-4 hours)
PBIO 4960 - Independent Research in Plant Biology (4 hours)
PBIO 4960H - Independent Research in Plant Biology (Honors) (4 hours)

Major Electives (9-12 hours)

In consultation with the department adviser, choose three of the following courses not used elsewhere in the major:

ANTH(BIOL)(ECOL)(ENTO)(FANR)(GEOL)(PATH)(PBIO) 4261 - Museum of Natural History Internship (3 hours)
ANTH(PBIO) 4300/6300-4300L/6300L - Ethnobotany (4 hours)
BCMB 3100 - Introductory Biochemistry and Molecular Biology (4 hours)
BCMB 3600 - Genomics and Bioinformatics (3 hours)
BIOS 3000 - Intermediate Biostatistics for Public Health Sciences (3 hours)
BTEC(BCMB)(PBIO) 4000L - Methods in Biotechnology (4 hours)
CBIO 3400 - Cell Biology (4 hours)
CBIO(PBIO) 4600/6600 - Biology of Protists (3 hours) and CBIO(PBIO) 4600L/6600L - Biology of Protists Laboratory (1 hour)
CRSS(FANR) 3060 - Soils and Hydrology (3 hours) and CRSS(FANR) 3060L - Soils and Hydrology Laboratory (1 hour)
CRSS 4450/6450 - Crop Physiology (3 hours)
CRSS(HORT)(ECOL) 4590/6590 - Soil Fertility and Plant Nutrition (3 hours) and CRSS(HORT) 4590L/6590L - Soil Fertility and Plant Nutrition Laboratory (1 hour)
CRSS 4600/6600 - Soil Physics (3 hours) and CRSS 4600L/6600L - Soil Physics Laboratory (1 hour)
CRSS(MIBO) 4610/6610L/6610L - Soil Microbiology (3 hours)
ECOL 3500-3500L - Ecology (4 hours) or ECOL 3505H-3505L - Ecology (Honors) (4 hours)
ECOL 4000/6000 - Population and Community Ecology (3 hours)
ECOL 4500/6500 - Evolutionary Ecology (4 hours)
FANR 4350/6350 - Conservation Genetics (3 hours)
**GEOG(PBIO) 4220/6220** - Ecological Biogeography (3 hours)
**GEOG(PBIO) 4240/6240** - Plant Geography (3 hours)
**GEOG 4370/6370-4370L/6370L** - Geographic Information Science (3 hours)
**HORT(ANTH)(PBIO) 3440** - Herbs, Spices, and Medicinal Plants (3 hours)
**HORT 4095/6095** - GPS/GIS Applications for Landscape Managers (3 hours)
**HORT(CRSS) 4440/6440-4440L/6440L** - Environmental Physiology (4 hours)
**PATH(ANTH)(PBIO) 3010** - Fungi: Friends and Foes (3 hours)
**PATH 3530-3530L** - Introductory Plant Pathology (3 hours)

**PATH(PBIO) 4200/6200-4200L/6200L** - Mycology (4 hours)
**PBGG(CRSS)(HORT) 4140/6140** - Plant Breeding (3 hours)
**PBIO 3270** - Flowers (3 hours)
**PBIO 3400** - Plants and Society (3 hours)
**PBIO 3600** - Plant Cell and Developmental Biology (4 hours)
**PBIO 3650-3650L** - Plant Ecology (4 hours)
**PBIO 3660L** - Plant Biology Intensive Laboratory (4 hours)
**PBIO(CRSS) 4500/6500** - Introduction to Gene Technology (3 hours)
**PBIO(GENE)(PATH)(BINF) 4510/6510** - Genome Evolution Across the Tree of Life (3 hours)
**PBIO(BINF) 4550/6550** - Bioinformatics Applications (3 hours)
**PBIO 4650/6650-4650L/6650L** - Plant Taxonomy (4 hours)
**PBIO(ECOL) 4750/6750** - Tropical Ecology and Conservation (3 hours)
**PBIO 4940** - Internship in Plant Biology (3-4 hours)
**PBIO 4960** - Independent Research in Plant Biology (1-4 hours) (4 hours)
**PBIO 4960H** - Independent Research in Plant Biology (Honors) (1-4 hours)
**PBIO 4970H** - Independent Research in Plant Biology (Honors) (1-4 hours)
**WASR(FORS) 4110/6110-4110L/6110L** - Forest Hydrology (4 hours)
**WASR 4400-4400L** - Introduction to Wetlands (3 hours)