

Ecology, Evolution and Environmental Biology Major Requirements (54)

Foundation Courses

- BIOL 107 - Introduction to Cell Biology
- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- MATH 134 - Calculus for the Life Sciences I (See Note 1)
- STAT 151 - Introduction to Applied Statistics I

Senior Courses

- BIOL 207 - Molecular Genetics and Heredity
- BIOL 208 - Principles of Ecology
- BIOL 221 - Mechanisms of Evolution
- CHEM 261 - Organic Chemistry I

3 units each (6) at the 200, 300 or 400 level from:

EE&E List B _____

EE&E List A or List B _____

3 units each (15) at the 300 or 400 level from:

EE&E List A _____

EE&E List C _____

EE&E List D _____

EE&E List E _____

EE&E List C or List D _____

6 units from:

EE&E List C or List D at the 400-level

EE&E List A - Biological Diversity:

- BIOL 332 - Community Ecology
- BIOL 361 - Marine Science
- BIOL 395 - Field Course in Biology (if appropriate topic)
- BIOL 495 - Special Topics in Biology (if appropriate topic)
- BOT 205 - Fundamentals of Plant Biology
- BOT 306 - Biology of the Fungi
- BOT 314 - Biology of Bryophytes
- BOT 321 - Plant Diversity and Evolution
- BOT 330 - Biodiversity and Ecosystem Function of Algae
- BOT 411 - Paleobotany
- ENT 220 - Insect Biology
- ENT 222 - Insects in Managed Ecosystems
- ENT 327 - Terrestrial Arthropod Diversity
- MA SC 402 - Special Topics in Marine Biology (if appr topic)
- MA SC 410 - Marine Invertebrate Zoology
- MA SC 412 - Biology of Fishes
- MICRB 265 - General Microbiology
- PALEO 201 - Dinosaurs in the Fossil Record
- ZOO 224 - Vertebrate Diversity
- ZOO 250 - Survey of the Invertebrates
- ZOO 351 - Freshwater Invertebrate Diversity
- ZOO 352 - Principles of Parasitism
- ZOO 405 - Biology of Fishes
- ZOO 406 - Biology of Amphibians and Reptiles
- ZOO 407 - Biology of Birds
- ZOO 408 - Biology of Mammals

Notes

1. MATH 134 is strongly recommended; however, it may be replaced with MATH 117, MATH 144, or MATH 154.
2. Some courses appear on more than one list. Students may not use the same course to satisfy more than one list requirement.
3. Students should consult the Department of Biological Sciences for advice about course selection throughout the program.

- COMM
- COMM
- IND
- BO__
- BO__
- BSBS
- BSFS
- BSSS
- LAB

EE&E List B - Biological Processes:

- BIOL 310 - Biology of Aging
- BIOL 495 - Special Topics in Biology (if appr topic)
- BOT 303 - Plant Development
- BOT 308 - Plant Anatomy
- BOT 340 - Plant Physiology
- GENET 270 - Foundations of Molecular Genetics
- GENET 305 - Genetic Analysis
- GENET 364 - Plant Genetics
- IMIN 200 - Infection and Immunity
- IMIN 324 - Basic Virology
- MA SC 415 - Structure and Function in Animals
- MICRB 311 - Microbial Physiology
- ZOOL 241 - Animal Physiology I: Homeostasis
- ZOOL 242 - Animal Physiology II: Intercellular Communication
- ZOOL 303 - Animal Developmental Biology
- ZOOL 340 - Comparative Environmental Physiology
- ZOOL 452 - Topics in Parasitology

EE&E List D - Evolution and Systematics:

- BIOL 322 - Diversity and Evolution of Microbial Life
- BIOL 335 - Principles of Systematics
- BIOL 380 - Genetic Analysis of Populations
- BIOL 421 - Molecular Evolution and Systematics
- BIOL 495 - Special Topics in Biology (if appropriate topic)
- ENT 327 - Terrestrial Arthropod Diversity
- MA SC 402 - Special Topics in Marine Biology (if appropriate topic)
- PALEO 414 - Paleontology
- PALEO 418 - Paleobiology of the Vertebrates I
- PALEO 419 - Paleobiology of the Vertebrates II
- ZOOL 325 - Comparative Anatomy of the Vertebrates
- ZOOL 350 - Biology and Evolution of Invertebrates
- ZOOL 405 - Biology of Fishes
- ZOOL 406 - Biology of Amphibians and Reptiles
- ZOOL 407 - Biology of Birds
- ZOOL 408 - Biology of Mammals

EE&E List C - Ecology and Environmental Biology:

- BIOL 332 - Community Ecology
- BIOL 333 - Wetland Science and Management
- BIOL 341 - Ecotoxicology
- BIOL 361 - Marine Science
- BIOL 364 - Freshwater Ecology
- BIOL 366 - Northern Ecology
- BIOL 367 - Conservation Biology
- BIOL 381 - A Planet in Crisis
- BIOL 384 - Global Change and Ecosystems
- BIOL 433 - Plant Animal Interactions
- BIOL 434 - Chemical Ecology
- BIOL 440 - Watershed Ecohydrology
- BIOL 468 - Topics in Conservation Biology
- BIOL 471 - Landscape Ecology
- BIOL 495 - Special Topics in Biology (if appropriate topic)
- BOT 330 - Biodiversity and Ecosystem Function of Algae
- BOT 332 - Plant Ecology
- MA SC 401 - Special Topics in Marine Biology (if appr topic)
- MA SC 402 - Special Topics in Marine Biology (if appr topic)
- MA SC 425 - Ecological Adaptations of Seaweeds
- MA SC 430 - Marine Ecology
- MA SC 437 - Marine Population Ecology and Dynamics
- MICRB 320 - Microbial Ecology
- MICRB 423 - Extreme Microbiology
- ZOOL 371 - Behavioral Ecology

EE&E List E - Scientific Methodology:

- BIOIN 301 - Bioinformatics I
- BIOIN 401 - Bioinformatics II
- BIOL 330 - Introduction to Biological Data
- BIOL 335 - Principles of Systematics
- BIOL 392 - Laboratory Techniques in Molecular Ecology and Systematics
- BIOL 395 - Field Course in Biology
- BIOL 421 - Molecular Evolution and Systematics
- BIOL 430 - Statistical Design and Analysis in Biology
- ENT 327 - Terrestrial Arthropod Diversity
- IMIN 410 - Bioinformatics for Molecular Biologists
- MA SC 402 - Special Topics in Marine Biology (if appropriate topic)
- MICRB 315 - Applied Microbiology and Biotechnology
- MICRB 392 - Environmental Microbiology Laboratory
- PALEO 400 - Paleontology Field School
- ZOOL 350 - Biology and Evolution of Invertebrates
- ZOOL 351 - Freshwater Invertebrate Diversity