

# 2020-21 Ecology, Evolution, and Conservation Biology Worksheet

## Major in Biological Sciences

To complete this concentration, Biological Sciences Majors may choose any 3 of the following:

- \_\_\_ BIOL\_SCI 332-0     **Conservation Genetics** - Critical issues in the management and understanding of endangered populations. *Prereq: BIOL\_SCI 203-0 OR 215-0 or ENVR\_SCI 202-0.*
- \_\_\_ BIOL\_SCI 333-0     **Plant-Animal Interactions** - Plant-animal interactions, and their consequences for individuals, populations, ecological communities, and ecosystems. Examination of how these interactions are responding to ongoing global factors such as anthropogenic habitat destruction and climate change. *Prereq: The former BIOL\_SCI 330-0, BIOL\_SCI 339-0, or ENVR\_SCI 202-0.*
- \_\_\_ BIOL\_SCI 334-0     **Soils and the Environment: The Earth's Critical Zone** - Soil development and morphology; physical, chemical, hydrologic, and biological properties of soils. *Prereq: BIOL\_SCI 203-0 OR 215-0 OR ENVR\_SCI 202-0.*
- \_\_\_ BIOL\_SCI 336-0     **Spring Flora** - Life cycles, vegetative and reproductive structures, and adaptations for pollination and fruit and seed dispersal of the wildflowers, trees, and shrubs of oak woodland. *Prereq: BIOL\_SCI 203-0 OR 215-0 OR 240-0, OR ENVR\_SCI 202-0.*
- \_\_\_ BIOL\_SCI 337-0     **Biostatistics** - Approaches, methods, and techniques for analyzing datasets in ecology and conservation biology. *Prereqs: BIOL\_SCI 203-0 OR 215-0 OR ENVR\_SCI 202-0; a course in statistics.*
- \_\_\_ BIOL\_SCI 339-0     **Critical Topics in Ecology and Conservation** - Seminar discussing historical and modern publications in the field. *Prereq: BIOL\_SCI 203-0 215-0, OR ENVR\_SCI 202-0.*
- \_\_\_ BIOL\_SCI 341-0     **Population Genetics** - Processes that affect allele frequency change and thus cause evolution. *Prereqs: BIOL\_SCI 203-0 OR 215-0; BIOL\_SCI 202-0 OR 219-0; a course in statistics.*
- \_\_\_ BIOL\_SCI 342-0     **Evolutionary Processes** - Evolutionary mechanisms (natural selection, genetic drift), evolutionary history (speciation, phylogenetics), and adaptations (sex, cooperation, aging, life history). *Prereqs: BIOL\_SCI 203-0 or 215-0, BIOL\_SCI 202-0 OR 219-0; and a course in statistics.*
- \_\_\_ BIOL\_SCI 344-0     **Anatomy of Vertebrates** - Vertebrate phylogeny illustrated via comparative morphology; anatomical/ functional and ontogenetic considerations; dissections. *Prereqs: BIOL\_SCI 103-0 or BIOL\_SCI 203-0.*
- \_\_\_ BIOL\_SCI 346-0     **Field Ecology** - An intensive experience in field ecological research. *Prereqs: BIOL\_SCI 203-0 OR 215-0; a course in statistics.*
- \_\_\_ BIOL\_SCI 347-0     **Conservation Biology** - Evolution, ecology, and conservation of patterns of biological diversity. *Prereqs: BIOL\_SCI 203-0 OR 215-0 OR ENVR\_SCI 202-0; a course in statistics.*
- \_\_\_ BIOL\_SCI 349-0     **Community Ecology** - Abundance, distribution, diversity, and scaling in plant communities in space-time. *Prereq: The former BIOL\_SCI 330-0 or BIOL\_SCI 339-0.*
- \_\_\_ BIOL\_SCI 350-0     **Plant Evolution and Diversity Lab** - Introduction to the diversity and evolutionary history of land plants. Introduction to the diversity and evolutionary history of land plants. *Prereq: The former BIOL\_SCI 330-0 or BIOL\_SCI 339-0.*