2023-24 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 ENVR_SCI 202-0.*
- ☐ **BIOL_SCI 333-0** **Plant-Animal Interactions** - Plant-animal interactions, and their consequences for individuals, populations, ecological communities, and ecosystems. *Prereq: BIOL_SCI 203-0 OR BIOL_SCI 339-0 OR BIOL_SCI 341-0 OR BIOL_SCI 342-0 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 BIOL_SCI 339-0 OR BIOL_SCI 341-0 OR BIOL_SCI 342-0 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 BIOL_SCI 339-0 OR BIOL_SCI 341-0 OR BIOL_SCI 342-0 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 201-0 OR ENVR_SCI 202-0, and MATH 218-3 OR 220-2.*
- ☐ **BIOL_SCI 339-0** **Critical Topics in Ecology and Conservation** - Seminar discussing historical and modern publications in the field. *Prereq: BIOL_SCI 203-0 OR BIOL_SCI 339-0 OR BIOL_SCI 341-0 OR BIOL_SCI 342-0 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, and BIOL_SCI 337-0 OR 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, and BIOL_SCI 337-0 OR another 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 OR 341-0 OR 342-0.*
- ☐ **BIOL_SCI 346-0** **Field Ecology** - An intensive experience in field ecological research. *Prereqs: BIOL_SCI 203-0, and BIOL_SCI 337-0 or another 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 ENVR_SCI 202-0, and BIOL_SCI 337-0 or another course in statistics.*
- ☐ **BIOL_SCI 349-0** **Community Ecology** - Abundance, distribution, diversity, and scaling in plant communities in space-time. *Prereq: BIOL_SCI 203-0 OR BIOL_SCI 339-0 OR BIOL_SCI 341-0 OR BIOL_SCI 342-0 OR ENVR_SCI 202-0.*
- ☐ **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: BIOL_SCI 203-0 OR BIOL_SCI 339-0 OR BIOL_SCI 341-0 OR BIOL_SCI 342-0 OR ENVR_SCI 202-0.*