

B.S. MAJOR REQUIREMENTS

Written/Oral Expression

University Writing Program 1
Communication 1

8 units

4
4

Preparatory Subject Matter

Biological Sciences 1A, 1B, 1C or 2A, 2B, 2C
Chemistry 2A, 2B, 8A, 8B
Mathematics 16A, 16B
Physics 1A, 1B
Statistics 100 or 102 or Plant Sciences 120

46-47 units

14-15
16
6
6
4

Breadth/General Education

Satisfaction of General Education requirement

6-24 units

Depth Subject Matter

Students graduating with this major are required to attain at least a C average (2.00 GPA) in all courses taken at the university in depth subject matter.

54-60 units

Environmental Science and Policy 100 or
Evolution and Ecology 101

4

Evolution and Ecology 100

4

Biological Sciences 101

4

Neurobiology, Physiology and Behavior 101

5

Wildlife, Fish, and Conservation Biology 121 or

Wildlife, Fish, and Conservation Biology 130

4

Anatomy, Physiology, and Cell Biology 100 or

Evolution and Ecology 105

3-4

Choose three lecture courses and two (laboratory) courses from:

Wildlife, Fish, and Conservation Biology 110, (110L),

Wildlife, Fish, and Conservation Biology 111, (111L),

Wildlife, Fish, and Conservation Biology 120, (120L),

Evolution and Ecology 134, (134L)

12-13

Wildlife, Fish, and Conservation Biology 122

4

Neurobiology, Physiology, and Behavior 102

3

Wildlife, Fish, and Conservation Biology 154

4

Choose one course (two recommended) from:

Statistics 104

Statistics 106

Statistics 108

4-8

Wildlife, Fish, and Conservation Biology 100, or

Wildlife, Fish, and Conservation Biology 101 and 101L, or

Wildlife, Fish, and Conservation Biology 102 and 102L, or

Geology 136

3-7

Strongly recommended, but not required

Applied Biological Systems Technology 180 or

Plant Sciences 180

4

Restricted Electives

Choose one from the nine Areas of Specialization shown below. Students must maintain a C average (2.00 GPA) and pass all coursework in their chosen specialization.

Areas of Specialization (AOS)

1. Behavioral Ecology is the study of the role of behavior in enabling organisms to adapt to their environment. It focuses on the evolutionary causes of variation in behavior among populations and species; and is concerned with the contribution of behavior to an organism's fitness. The specialization provides focal training in animal behavior, as well as coursework in social organization, cognition, and the neural and physiological basis of behavior. For a sample schedule, click [here](#).

2. Conservation Biology is rooted in the science of understanding and alleviating threats to global biodiversity. It focuses on identifying and alleviating extinction risks posed to endangered populations or species. This specialization provides a background in conservation and habitat restoration practices and offers coursework emphasizing focal habitat types, as well as environmental law and policy. For a sample schedule, click [here](#).

3. Ecotoxicology and Disease Ecology emphasizes the effects of pollutants or pathogens on ecosystems and species, and of means of alleviating these. The specialization provides a background in biochemistry and energetics, and offers coursework in toxicants and their environmental fates, and parasitology. For a sample schedule, click [here](#).

4. Fisheries Biology is an interdisciplinary option that provides a background in fish diversity, physiology, conservation, management, and field techniques. Coursework options are available for both marine and freshwater systems, including the spring quarter program at the Bodega Marine Laboratory. For a sample schedule, click [here](#).

5. Physiological Ecology is the study of physiological changes that enable organisms to adapt to their environment. It focuses on the biophysical, biochemical, and physiological processes that allow organisms to interact with each other and with their environment. This specialization provides a background in physiology, biochemistry, and energetics; and also offers coursework options in environmental physiology. For a sample schedule, click [here](#).

6. Wildlife Damage Management is concerned with problematic human-animal interactions. This specialization provides a background in community and population ecology, ethics and animal rights, and stresses ecological management of pest species. For a sample schedule, click [here](#).

7. Wildlife Biology is an interdisciplinary option that provides a background in wildlife diversity, conservation, management, ecology, and field techniques. It also includes coursework options from many of the other specializations such as habitat ecology, conservation and restoration, and ecotoxicology; as well as plant biology. For a sample schedule, click [here](#).

8. Population Dynamics is the study of the changes in population structure, abundance, and distribution both across time and space. It includes examination of disturbances on populations and investigation of multi-species interactions. This specialization provides a background in statistics and modeling for ecological systems. For a sample schedule, click [here](#).

9. An Individualized AOS enables students to establish a specialization that may not fit within the predefined AOS's listed above. This option is especially useful if you have interests in more than one of the above specializations. With prior approval of your advisor and the curriculum committee, you may design your own individualized specialization within the major. The specialization will consist of 4-6 additional courses with a common theme. For a sample schedule, click [here](#).