Both the Biology AB and ScB programs emphasize exposure to practical skills and experimental design through coursework in BIOL or NEUR which integrate hands-on laboratory or fieldwork components. All concentrators are required to take a minimum 3 courses with a laboratory or fieldwork component. Please note that lab courses in departments other than Biology or Neuroscience can NOT be used to satisfy this requirement.

A list of possible BIOL and NEUR course offerings which can be used to satisfy this requirement are listed below. Students should note that not all courses are offered every year and/or may have enrollment caps or other restrictions (e.g. semester standing). Courses @ Brown should be consulted for the most current course offerings and other detailed course information.

* Please note that only ONE semester of course-based research via BIOL 1950/1960 or NEUR 1970 can be applied toward the laboratory requirement for Biology programs

**Fall Courses**

BIOL 0150A: Techniques and Analyses Using DNA-Based Biotechnology
BIOL 0190E: Botanical Roots of Modern Medicine
BIOL 0190R: Phage Hunters, Part I
BIOL 0410: Invertebrate Zoology
BIOL 0470: Genetics
BIOL 0600: Genetic Screening in Model Organisms
BIOL 0800: Principles of Physiology
BIOL 0940D: Rhode Island Flora: Understanding and Documenting Local Plant Diversity
BIOL 1310: Developmental Biology
BIOL 1515: Conservation in the Genomics Age
BIOL 1950*: Directed Research/Independent Study
CLPS 1195: Life Under Water in the Anthropocene
NEUR 1440: Mechanisms and Meaning of Neural Dynamics
BIOL/NEUR 1630: Open-Source Big Data Neuroscience Lab
BIOL/NEUR 1650: Structure of the Nervous System
NEUR 1670: Neuropharmacology and Synaptic Transmission
NEUR 1970*: Independent Study

**Spring Courses**

BIOL 0150D: Techniques in Regenerative Medicine: Cells, Scaffolds, and Staining
BIOL 0200: Foundations of Living Systems
BIOL 0285: Inquiry in Biochemistry: From Gene to Protein Function
BIOL 0430: Evolution of Plant Diversity
BIOL 0440: Inquiry in Plant Biology: Analysis of Plant Growth, Reproduction, and Adaptive Responses
BIOL 0510: Introductory Microbiology
BIOL 0510: Antibiotic Drug Discovery: Identifying Novel Soil Microbes to Combat Antibiotic Resistance
BIOL 1150: Stem Cell Engineering
BIOL 1880: Comparative Biology of the Vertebrates
BIOL 1885: Human Anatomy and Biomechanics
BIOL 1960*: Directed Research/Independent Study

BIOL 1610/NEUR 1600: Experimental Neurobiology
NEUR 1970*: Independent Study