

Neuroscience and Behavior

The major in neuroscience and behavior is administered by the Neuroscience and Behavior Committee: Professors Barry (biological sciences), Cohen (psychology and education), Hollis (psychology and education); Associate Professors Bacon (biological sciences, *chair, fall 2009*), Brodie (biological sciences), Gillis (biological sciences, *chair*).

Contact Persons

Sarah Bacon, *chair, fall 2009*

Gary Gillis, *chair*

The program in neuroscience and behavior is intended for students with strong, integrative interests in both biological sciences and psychology and in the biological bases of behavior.

Requirements for the Major

Credits

- A minimum of 60 credits

Courses

- Required core curriculum:
 - Biological Sciences 145, Introductory Biology, or Biological Sciences 160, Integrated Introduction to Biology and Chemistry
 - Psychology 101 or 100, Introduction to Psychology
 - Chemistry 101, General Chemistry, or Chemistry 160, Integrated Introduction to Biology and Chemistry
 - Chemistry 201, General Chemistry II
 - Chemistry 202, Organic Chemistry
 - Mathematics, one of the following:
 - 101, Calculus
 - 103, Accelerated Calculus
 - Psychology 200, Research Methods in Psychology
 - Psychology 250, Introduction to the Biological Bases of Behavior
 - Biological Sciences 200, Introduction to Biology II
 - Biological Sciences 220, Cell Biology
 - Biological Sciences 333, Neurobiology

- A course in quantitative inference:
 - Psychology 201, Statistics *or*
 - Statistics 240, Elementary Data Analysis and Experimental Design
- Two courses at the 300 level must be selected from the following:
 - Biological Sciences 311, Protein Biochemistry and Cellular Metabolism
 - Biological Sciences 315, Ethology
 - Biological Sciences 322, Comparative Biomechanics
 - Biological Sciences 335, Mammalian Anatomy
 - Biological Sciences 328, Regulatory and Integrative Human Physiology
 - Psychology 350, Laboratory in Behavioral Neuroscience
 - Psychology 351, Laboratory in Animal Behavior
 - Psychology 352, Laboratory in Sensory Psychology
 - Computer Science 334, Artificial Intelligence
 - Computer Science 335, Introduction to Computer Vision and Robotics
 - Neuroscience 395, Independent Study (4 credits)
- A third 300-level course from the preceding list, or from the following:
 - Biological Sciences 334, Chemical Communication in Vertebrates
 - Psychology 359, Seminar in the Biological Bases of Behavior

Other

- Students planning postgraduate study in a related discipline or in medicine are urged to participate in independent laboratory research within either or both departments.

Neuroscience and behavior is an interdisciplinary major. Students who pursue an interdisciplinary major automatically fulfill the College's "outside the major" requirement (see p. 8).

No minor in neuroscience and behavior is offered.

Course Offerings

250f Introduction to the Biological Bases of Behavior

(Same as Psychology 250f) This course is an introduction to and survey of the biological bases of behavior, including physiological, biochemical, and neurophysiological determinants of sensation, motor control, sleep, eating and drinking, learning and memory, language, and mental disorders.

Meets Social Sciences III-A requirement

W. Millard

Prereq. A 100-level course in psychology and 4 credits in biological sciences; 4 credits

295fs Independent Study

Does not meet a distribution requirement

1-4 credits

395fs Independent Study

Does not meet a distribution requirement

Prereq. invitation of the committee; 1-8 credits