Cognitive neuroscience is a science concerned with discovering biological bases of psychological functions. It addresses questions of how behavior is produced by neural circuits of the brain and also how those neural circuits are in turn influenced by behavioral experiences. Students with a concentration in Cognitive Neuroscience are expected to learn about existing findings within the field and also to become proficient in how to conduct and analyze scientific investigations directed toward understanding the biological basis of behavior. This includes observing behavior, formulating hypotheses, designing experiments to test these hypotheses, running experiments, performing statistical analyses, and writing reports.

BHA students take 9 courses in their DC concentration, for a minimum of 81 units. A completed DC Concentration Declaration Sheet must be approved by the concentration faculty advisor and submitted to the BXA office by the end of the student's sophomore year.

**Introductory and Survey Coursework** (4 courses, 36 units)

- **03-121** Modern Biology 9
- **03-363** Systems Neuroscience 9
- **85-219** Biological Foundations of Behavior 9
- **85-211** Cognitive Psychology 9
  or **85-213** Human Information Processing and Artificial Intelligence

**Research Methods Training** (2 courses, 18 units)

- **36-309** Experimental Design for Behavioral and Social Sciences 9
  or **85-309** Experimental Design for Behavioral and Social Sciences - Psychology
- **85-314** Cognitive Neuroscience Research Methods * 9

* 85-310 Research Methods in Cognitive Psychology may be substituted if necessary.

**Distribution Requirements** (3 courses, 27 units)

Complete three courses with at least one from each category below.

**Approaches to Cognitive Neuroscience:**

- **45-386** Neural Computation 9
- **35-883** Computational Models of Neural Systems 12
- **36-743** Statistical Methods for Neuroscience and Psychology 12
- **85-345** Meaning in Mind and Brain 9
- **85-412** Cognitive Modeling 9
- **85-414** Cognitive Neuropsychology 9
- **85-419** Introduction to Parallel Distributed Processing 9
- **85-429** Cognitive Brain Imaging 9

**Cognitive Neuroscience Electives:**

- **03-133** Neurobiology of Disease 9
- **03-362** Cellular Neuroscience 9
- **03-364** Developmental Neuroscience 9
- **85-336** Music and Mind: The Cognitive Neuroscience of Sound 9
- **85-270** Perception 9
- **85-285** Auditory Perception: Sense of Sound 9
- **85-390** Human Memory 9
- **85-406** Autism: Psychological and Neuroscience Perspectives 9
- **85-435** Neural and Cognitive Models of Adaptive Decision 9
- **85-442** Health Psychology 9
- **85-501** Stress, Coping and Well-Being 9