Neuroscience

Administered by the Neuroscience Committee; Patsy S. Dickinson, Chair
Julie J. Santorella, Program Coordinator
(See committee list, page 354.)

Joint Appointments with Biology: Professor Patsy S. Dickinson, Assistant Professor
Hadley Wilson Horch
Joint Appointments with Psychology: Associate Professor Richmond Thompson,
Assistant Professor Seth Ramus
Laboratory Instructor: Nancy J. Curtis

Requirements for the Major in Neuroscience

The major consists of twelve courses, including nine core courses and three electives from
the lists below. Advanced placement credits may not be used to fulfill any of the course
requirements for the major. Independent study in neuroscience may be used to fulfill one of
the two elective credits. If students place out of Psychology 101, twelve courses related to
Neuroscience must still be completed.

Note: The information provided below is a listing of required and elective courses for the
major in Neuroscience. These courses are offered by other departments and programs within
the College. Please refer to the departments of Biology, Chemistry, Mathematics, Physics, and
Psychology for further information, including course descriptions, instructors, and semesters
when these courses will next be offered.

I. Core Courses

Introductory Level and General Courses

Biology 109a - MCSR, INS. Introductory Biology
or Biology 102a - MCSR, INS. Biological Principles II
Chemistry 225a. Organic Chemistry I
Psychology 10b. What’s on Your Mind? An Introduction to the Brain
and Behavior
or Psychology 101b. Introduction to Psychology
Psychology 252a - MCSR. Data Analysis
or Mathematics 165a - MCSR. Biostatistics

Introductory Neuroscience Course

Biology 213a - MCSR, INS. Neurobiology
or Psychology 218a. Physiological Psychology

Mid-level Neuroscience Courses

Three of the following:

Biology 253a. Neurophysiology
Biology 266a. Molecular Neurobiology
Psychology 275a - INS. Laboratory in Behavioral Neuroscience: Social Behavior
Psychology 276a - INS. Laboratory in Behavioral Neuroscience: Learning and Memory
Advanced Neuroscience Course

One of the following:
- Biology 325a. Topics in Neuroscience
- Biology 329a. Neuronal Regeneration
- Psychology 315a. Hormones and Behavior
- Psychology 316a. Comparative Neuroanatomy
- Psychology 319a. Memory and Brain

II. Three electives may be chosen from the courses listed above (but not already taken) or below:

- Biology 101a - MCSR, INS. Biological Principles I
- Biology 212a - MCSR, INS. Genetics and Molecular Biology
- Biology 214a - MCSR, INS. Comparative Physiology
- Biology 217a - MCSR, INS. Developmental Biology
- Biology 224a - MCSR, INS. Biochemistry and Cell Biology
  (same as Chemistry 231)
- Biology 333a. Advanced Cell and Molecular Biology
- Chemistry 232a - MCSR. Biochemistry (same as Biology 232)
- Computer Science 355a. Cognitive Architecture
- Mathematics 204a - MCSR. Biomathematics (same as Biology 174)
- Physics 104a - MCSR, INS. Introductory Physics II
- Psychology 210b. Infant and Child Development
- Psychology 216b. Cognitive Psychology
- Psychology 217a. Neuropsychology
- Psychology 251b. Research Design in Psychology
- Psychology 259b/260b. Abnormal Psychology
- Psychology 270b. Laboratory in Cognition

Neuroscience 291a–294a. Intermediate Independent Study
Neuroscience 401a–404a. Advanced Independent Study and Honors