

Neuroscience

View the Neuroscience Program website

Neuroscience investigates the molecular, cellular, and genetic aspects of nervous system functioning as well as their influences on behavior. The minor in neuroscience will allow the exploration of the brain from a biological, chemical, and psychological perspective. The understanding of neuroscience requires knowledge about the function of neurons, the function of various brain regions and their relation to behavior, as well as a grasp of the methodology behind neuroscientific research, including development, analysis, and interpretation of experimental studies.

The goal of the neuroscience minor is to create a cross-disciplinary approach to neuroscience with each student gaining experience and perspectives from the disciplines of biology, chemistry, and psychology. The minor places a strong emphasis on direct research experience within neuroscience. In addition, the neuroscience minor creates an environment where faculty and students work collaboratively and discuss issues of neuroscience. Any student with an interest in pursuing the cross-disciplinary minor in neuroscience should consult with the coordinator of the minor. Students are encouraged to declare their participation in their sophomore year but no later than the end of the junior year. Students also should seek an adviser, whether formal or informal, from participating faculty.

Degree Requirements for the Minor

General College Requirements

General College requirements.

- Must include CHEM 101 or CHEM 106 or CHEM 105 (no longer offered). CHEM 106 is strongly recommended. (Meets Core Curriculum requirement Natural Sciences with Laboratory.)
- Must take PSYC 101 (Meets Core Curriculum requirement in Social Sciences.)

Major Discipline of Study

All requirements in a major discipline of study.

Course Requirements

At least 18 credit hours in courses approved for the neurosciences, with a grade of C or above, including:

Required courses: six credit hours

- NEUR 201: Introduction to Neuroscience (4S)
- NEUR 301: Seminar in Neuroscience (1E)
- NEUR 303: Advanced Seminar in Neuroscience(1E)

Elective courses

12 credit hours of upper-level elective credits selected from the following list. Electives must originate from at least two disciplines (BIOL, CHEM, NEUR, PSYC).

- BIOL 305: Animal Behavior
- BIOL 330: Human Anatomy and Physiology
- BIOL 387: Sensory Biology
- BIOL 419: Neurobiology
- BIOL 436: Comparative Animal Physiology
- BIOL 438: Cancer Cell Biology
- CHEM 420: Biochemistry I
- CHEM 425/BIOL 425: Biochemistry II
- NEUR 302: Directed Research in Neuroscience
- PHIL382: Meditation and the Mind
- PSYC 312: Sensation and Perception OR PSYC 326: Perception with Laboratory
- PSYC 314: Drugs, Brains, and Behavior
- PSYC 322/422: Biological Psychology
- Upper-level Special Topics Courses in Biology, Chemistry, or Psychology, or other disciplines, specifically approved for Neuroscience

A completed neuroscience St. Mary's Project or neuroscience internship may be substituted for NEUR 302 with approval of the Coordinator.