



Brooklyn College of the City University of New York
Department of Psychology
Undergraduate Neuroscience Curriculum



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OVERVIEW:

Neuroscience, or the study of the structure and function of the nervous system, is one of the most rapidly advancing fields of research and training. The undergraduate Neuroscience Curriculum at Brooklyn College is designed to provide a broad and challenging sequence of courses in psychology, emphasizing behavioral and cognitive perspectives as well as cellular and molecular mechanisms. Students also will receive course credit for original research projects they conduct in collaboration with BC neuroscience faculty within the Departments of Psychology or Biology. While the research experience itself has strong benefits, it also is useful for interacting more closely with professors and enhancing preparation for academic or applied graduate programs and neuroscience-related professions. The overall objectives are to attract talented undergraduate students and enhance BC's existing program of neuroscience research and scholarship by bringing together students and faculty engaged in this interdisciplinary discipline.

PROGRAM GOALS:

There are several interrelated goals of the undergraduate neuroscience curriculum and training program.

- To provide a high-quality curriculum for students interested in the neural sciences.
- To foster an educational experience that maximizes the chances of successfully pursuing career options in the health sciences or gaining admittance into competitive graduate programs in the neurosciences and health-related fields.
- To provide opportunities for students to participate in laboratory research in the neurosciences.
- To offer interesting courses for students who seek an introduction to the principles and practices of neuroscience without necessarily wishing to major in the subject.

THE NEUROSCIENCE CURRICULUM PREPARES STUDENTS FOR:

- Advanced study in an applied, health-related field such as medicine, dentistry, clinical neuropsychology, neurorehabilitation, pharmacy, nursing, physicians assistance, public health, physical therapy, audiology, speech pathology, exercise physiology, etc.
- Graduate training in research-based neuroscience and related programs with a future career in a university, research institute, pharmaceutical company, or hospital.
- Research assistant or laboratory technician positions in pharmaceutical, biotech, hospital, or university settings.
- Middle or high school teaching following the completion of a teacher certificate program in the School of Education.

SUGGESTED COURSE OF STUDY:

Completion of the Psychology major requirements as part of the Bachelor of Science degree program (B.S.) at Brooklyn College.

Core Courses:

(A) All of the following courses:

- Introductory Psychology 1.1 (3 credits)
- Statistical Methods in Psychological Research 40.1 (4 credits)
- Experimental Psychology 57 (4 credits)
- Introduction to Physiological Psychology (65.1) (3 credits)

Note: It is recommended that students successfully complete the above four courses by the end of their second year of school.

(B) Seven of the following eight courses:

- Learning (53.1) (3 credits)
- Perception (56.1) (3 credits)
- Comparative Psychology (60) (3 credits)
- Human Neuropsychology (64) (3 credits)
- Drugs and Behavior (65.2) (3 credits)
- Cognitive Psychology (57.1) (3 credits)
- Independent Research I (83.1) (3 credits)
- Special Topics in Biopsychology (60.1) (3 credits)

(C) In order to meet Psychology major requirements, students also must complete one of the following four courses:

- Social Psychology (10) (3 credits)
- Introductory Child Psychology (20) (3 credits)
- Abnormal Psychology I (30) (3 credits)
- Introduction to Personality (30.2) (3 credits)

Additional Neuroscience-Related Courses at BC

Note: These courses are offered through departments other than psychology and may have prerequisite requirements.

- General Biology I (Biology) (3) (4.5 credits)
- General Biology II (Biology) (4) (4.5 credits)
- Molecular Biology of Development (Biology) (27.5) (4 credits)
- Genetics (Biology) (58) (2 credits)
- Human Physiology (Health & Nutrition) (22.71) (3 credits)
- Physiology Laboratory (Health & Nutrition) (22.72) (2 credits)
- Drugs & Society (Health & Nutrition) (39) (3 credits)
- Philosophy and Artificial Intelligence (Computer & Information Science) (10) (3 credits)
- Speech-Language and Hearing Science: Anatomy and Physiology (Speech) (17.8) (3 credits)