BARNARD COLLEGE

PROGRAM IN NEUROSCIENCE & BEHAVIOR

This major provides a strong background in the biological underpinnings of behavior and cognition, and is intended for students who plan to pursue a research career in neuroscience or a related discipline. Students electing this major are exposed to basic courses in Biology and Psychology and to advanced courses in neuroscience and behavior. Majors must choose one of two areas of concentration. The Behavior concentration places greater emphasis on behavioral and systems neuroscience, while the Cellular concentration places greater emphasis on cellular and molecular neuroscience.

To elect the major in Neuroscience and Behavior, a student must have completed these courses by the end of the sophomore year with an average grade of B- or better in the introductory classes in (a) Biology, (b) Chemistry and (c) Psychology.

- a) BIOL BC 1500 & BC1501 Introduction to Organismal & Evolutionary with laboratory
  - BIOL BC 1502 & BC1503 Introduction to Cell & Molecular Biology with laboratory
- b) CHEM BC2001 General Chemistry, lecture with laboratory
  - CHEM BC3230 Organic Chemistry I, lecture
  - CHEM BC3328 Organic Chemistry I, laboratory
- c) PSYC BC 1001 Introduction to Psychology

All majors engage in two semesters of independent research during the senior year while taking the Senior Research Seminar. In the junior year, majors must begin developing a plan for the senior research project. There is a meeting for junior majors during the spring semester to begin this process.

As an alternative to the Neuroscience & Behavior major, students may pursue an interdisciplinary program by majoring in either Biology or Psychology and taking a minor in the other discipline. There are no minors in Neuroscience & Behavior.

FACULTY & STAFF

Program Director: John Glendinning, Professor, Biology (jglendin@barnard.edu), 212- 854-4749

Administrator: Sarah Boorsma (snickel@barnard.edu), 212-854-2437

Department of Psychology

Peter Balsam, Professor (balsam@columbia.edu)
Joshua New, Assistant Professor (jnew@barnard.edu)
Kara Pham, Lecturer (kpham@barnard.edu)
Robert Remez, Professor (remez@columbia.edu)
Russell Romeo, Assistant Professor (rromeo@barnard.edu)
Rae Silver, Professor (qr@columbia.edu)

Department of Biology

Elizabeth Bauer, Assistant Professor (ebauer@barnard.edu)
Rebecca Calisi-Rodriguez, Assistant Professor (rcalisi@barnard.edu)
John Glendinning, Professor (jglendin@barnard.edu)
Paul Hertz, Professor (phertz@barnard.edu)
GENERAL REQUIREMENTS FOR THE MAJOR

Required Core Courses:
- PSYC BC1001 Introduction to Psychology
- BIOL BC1500/1501 Introduction to Organismal & Evolutionary with laboratory
- BIOL BC1502/1503 Introduction to Cell & Molecular Biology with laboratory
- NSBV BC3593x-3594y Research Seminar in Neuroscience & Behavior
- Two elective courses selected from a list of approved courses (listed on the NSB website)

One of the following courses:
- PSYC BC1101 Statistics & PSYC1102 Statistics Recitation or
- BIOL BC2386 Statistics and Research Design

Both of the following courses; one must include the associated laboratory:
- PSYC BC119 Systems & Behavioral Neuroscience (lecture)
  (and) PSYC BC118 Systems & Behavioral Neuroscience (lab)
- BIOL BC3362 Molecular & Cellular Neuroscience (lecture)
  (and) BIOL BC3363 Molecular & Cellular Neuroscience (lab)

Chemistry Requirement:
- CHEM BC2001 General Chemistry with Lab
- CHEM BC3328 Organic Chemistry I (lecture)
- CHEM BC3230 Organic Chemistry I (lab)

ADDITIONAL REQUIREMENTS FOR THE BEHAVIORAL OR CELLULAR CONCENTRATION

For the Behavioral Concentration:
- PSYC BC1106 Psychology of Learning (lab)
- PSYC BC1107 Psychology of Learning (lecture)
- BIOL BC2280 Animal Behavior

For the Cellular Concentration:
- BIOL BC2100 Molecular & Mendelian Genetics
- BIOL BC3310 Cell Biology
- One of the following labs:
  - BIOL BC2801 Lab in Genetics
  - BIOL BC3311 Lab in Cell Biology
  - BIOL BC3303 Lab in Molecular Biology
  - BIOL BC3305 Project Lab in Molecular Biology

COLUMBIA COURSES

There are many courses at Columbia that can be taken in lieu of major requirements or as electives. A list of these courses is available on the NSB website. Additional courses at Barnard or Columbia may be counted with permission of the Director.