Behavioral Neurosciences Minor

Director: Schatz (PSY)
Behavioral Neurosciences Advisory Board: Becker (PSY), Garrigan (PSY), Hoffman (PHL), King Smith (BIO), Murray (CHM), Reynolds (CHM)

Program Overview
Behavioral neuroscience is a field of endeavor that uses interdisciplinary approaches to study and understand the interaction of brain processes and complex behaviors, human and animal. It is an integration of traditional disciplines as diverse as biology, chemistry, computer science, philosophy, and psychology. The behavioral neuroscience minor is intended to be a first step for undergraduate students contemplating professional, academic, and/or research careers in neuroscience or related fields.

Program Purpose and Specifics
Mission:
- Advancing understanding of nervous systems and the part they play in determining behavior.
- Providing students with multidisciplinary training and perspectives needed to approach issues of interest in the broad area of the biological support of behavior.

Learning Goals and Objectives
The learning objectives of the Behavioral Neuroscience program include fostering in students:
- An understanding of theories, concepts, and research findings within the field of behavioral neuroscience.
- The usage of appropriate methodologies to develop knowledge and to examine questions within the field of behavioral neuroscience.
- The ability to apply a knowledge base to phenomena within the field of behavioral neuroscience.
- An awareness and an adoption of values and ethical standards shared by professionals within the field of behavioral neuroscience.

The Minor
Students complete the Behavioral Neuroscience minor with six courses:
Three ‘core’ courses and three electives.

Core Courses:
The following three core courses are required, with PSY 205 or BIO 412 serving as a prerequisite for PSY 206 and PSY 207
PSY 205 or Neuroscience Foundations (PSY 205)
BIO 412 or Neurobiology (BIO 412) AND
PSY 206 Behavioral Neuroscience
PSY 207 Cognitive Neuroscience

Elective Courses
To ensure the interdisciplinary nature of the program, students wishing to complete the minor must select elective courses offered by at least one participating department other than their own major.

Courses currently offered by the Departments of Biology, Chemistry, Computer Science, Education/Special Education, Interdisciplinary Health Services, Philosophy, Physics, and Psychology that might support the proposed minor are listed below. Students must complete at least three electives, chosen from among:

Biology
BIO 101 Biology I Cells
BIO 401 Animal Behavior
BIO 402 Advanced Cell Biology
BIO 405 Biochemistry
BIO 411 Molecular Genetics
BIO 412 Neurobiology
BIO 417 Systemic Physiology

Chemistry
CHM 210 Organic Chemistry I
CHM 215 Organic Chemistry II
CHM 340 Biochemistry
CHM 430 Mechanisms in Organic Chemistry
CHM 480 Inorganic Biochemistry

Computer Science
121 Computer Science II
Students may petition the Behavioral Neuroscience Advisory Board to receive credit for courses not listed above. The determination of the appropriateness of courses for inclusion in the minor will be made by the director of the program, in consultation with an advisory board. Courses may be taken for Behavioral Neuroscience credit only if the student's work in the class meets one or more of the following criteria:

- Coursework includes a substantive treatment of brain/behavior relationships.
- Coursework includes a substantive treatment of methodology, techniques, and approaches relevant to neuroscience.
- Coursework in other ways contributes to an understanding of the relationship between nervous systems and behavior or other issues typically addressed by neuroscientists.