

## Minor - Neuroscience Description

The minor in neuroscience is an interdisciplinary course of study that will provide students an understanding of the neural underpinnings of behavior. Students will be encouraged to take basic and advanced courses in pure and applied neuroscience from several departments. Students from many different majors will find the scope of courses addressing brain and behavior enlightening and practical for their future careers. They will come to understand that neuroscience spans levels from the molecular to the psychological in both humans and other animals and learn how to apply theory to experimental or observational studies. There is no true dichotomy between the brain and the mind.

## **Course Requirements**

The minor in neuroscience requires 18-22 hours, including Psy 319, Bisc 327, and four courses at the 300 level or above, of which at least one course must be a formal laboratory course or director-approved independent laboratory course (3 credit hours minimum) and at least one course must be at the 500 level. At least 6 hours, not including Psy 319 or Bisc 327, must be outside of the student's major. No more than 6 hours of independent study (e.g., Neu 491, 493, Bisc 491, Psy 420, or ES 490) can count towards the minor. Approved laboratory courses for the minor and other approved courses are listed below. Courses may not satisfy requirements for both the student's major and the neuroscience minor.

## **Approved Neuroscience Laboratory Courses**

- Bisc 330. Introductory Physiology
- Bisc 427. Methods in Comparative Neuroscience
- Bisc 512. Animal Behavior
- Bisc 518. Microtechnique
- El E 314. Biomedical Measurement
- Neu 491. Directed Research in Neuroscience
- Neu 493. Neuroscience Capstone Research
- Psy 390. Lab in Psy: Behavioral Neuroscience

## **Approved Neuroscience Courses**

- Bisc 529. Endocrinology
- Bisc 533. Advanced Neuroscience
- Bisc 538. Hormones and Behavior
- Bisc 541. Cell Biology of Neurodegenerative Disorders
- Bisc 543. Functional Neuroanatomy
- Bms 471. Targeting Neurodegenerative Diseases
- CSD 505. Neurophysiology of Communication
- CSD 526. Neurogenic Disorders of Language
- El E 313. Physiology for Biomedical Engineering
- El E 413. Biomedical Signal Processing
- ES 344. Aging in the 21st Century
- ES 338. Motor Control and Learning
- ES 512. Foundations of Biomechanics
- ES 514. Applied Electromyography
- ES 515. Stress and the Brain
- Medc 416. Intro to the Principles of Med Chem I
- Medc 417. Intro to the Principles of Med Chem II
- Medc 418. Neuroscience Principles of Drug Abuse
- Phcl 586. Receptors and Channels
- Phil 332. Personal Identity and the Self
- Phil 342. Philosophy of the Mind
- Psy 309. Learning and Behavior
- Psy 322. Drugs and Behavior
- Psy 326. Sensation and Perception
- Psy 505. Conditioning and Learning
- Psy 511. Neural Basis of Learning and Memory