

Proposed Interdisciplinary Neuroscience Minor

The interdisciplinary neuroscience minor involves the study of brain theory and research, psychological theory and research, philosophy of mind and consciousness, and mathematical modeling of brain and cognitive processes to understand the role that the brain plays in mental and behavioral phenomena.

The interdisciplinary neuroscience minor is composed of courses in biological sciences, communication disorders & sciences, mathematics and computer sciences, psychology, and philosophy. Courses may be double counted for the respective major and the minor. Existing prerequisites for courses must be satisfied.

Requirements

The minor includes 3 required courses (9 hours), another course from the first group of electives (2-3 hours), and 9 hours from the last group of electives, for a total of 20-21 hours for the minor.

Course	Title	Hours
Required Courses (9 Hours)		
PHI 3540	Philosophy of Mind	3-0-3
PSY 3310	Biological Psychology	3-0-3
PSY 3820	Cognitive Neuroscience*	3-0-3
One course from the following group of electives (2-3 Hours)		
BIO 4834	Neurobiology	3-0-3
CDS 3500	Neurological/Embryological Aspects of Comm	3-0-3
MAT 3800	Seminar: Neural Networks or Artificial Intelligence	2-0-2
PSY 3830	Cognitive Processes	3-0-3
Nine hours from the following group of electives; No more than 2 courses from one discipline		
BIO 3100	Molecular and Cell Biology	3-0-3
BIO 3200	Genetics	3-2-4
BIO 4832	Animal Behavior	3-3-4
BIO 4834	Neurobiology	3-0-3
BIO 5406	Endocrinology	3-3-4
CDS 2500	Anatomy/Physiology of Speech	3-0-3
CDS 3500	Neurological/Embryological Aspects of Comm	3-0-3
CDS 5400	Special Topics: Executive Functions	2-0-2
MAT 3800	Seminar: Neural Networks or Artificial Intelligence	2-0-2
MAT 4885	Theory of Computation	3-0-3
PHI 3700G	Language and Human Nature	3-0-3
PHI 3780	Philosophy of Science	3-0-3
PHI 3900	Symbolic Logic	3-0-3
PSY 3680	Sensation and Perception	3-0-3
PSY 3830	Cognitive Processes	3-0-3

TOTAL: 20-21 HOURS

* New course

Rationale

Neuroscience is a rapidly growing area that focuses on the functioning of the brain to explain the mind and behavior. Much of the knowledge and theory about neural processes have come from many different disciplines. This minor exposes students to different perspectives from the core disciplines that study the brain and its processes. Students interested in career opportunities and graduate study in neuroscience will benefit directly, as will other students interested in gaining greater understanding of the subject.

Effective Date: Fall 2010

Date Approved by Psychology: 4-18-08

Date Approved by Biology: 4-20-09

Date Approved by CDS: 11-05-08

Date Approved by Math: 3-5-09

Date Approved by Philosophy: 2-19-09

Date Approved by COS: 9-4-09

Date Approved by CAH: 4-29-09

Date Approved by CAA: 10-02-09