NEUROSCIENCE

Codirectors: Norma Velazquez-Ulloa and Todd Watson
Administrative Coordinator: Rian Brennan

The interdisciplinary neuroscience minor is designed to allow students an opportunity to explore the fast-growing field of neuroscience from multiple perspectives. Students develop an in-depth understanding of nervous-system function in a structured and rigorous way while pursuing a major in another discipline. The minor draws from multiple departments and programs, including biochemistry and molecular biology, biology, chemistry, world languages and literatures, mathematical sciences, philosophy, physics, and psychology.

Minor Requirements

A minimum of 22 semester credits (six courses), distributed as follows:

- BIO 252 Introduction to Neuroscience, PSY 252 Introduction to Neuroscience, or PSY 280 Brain and Behavior.
- One 300- or 400-level neuroscience course with laboratory, chosen from the following:

BIO 380	Behavioral Genetics
BIO 422	Neurobiology
PSY 350	Behavioral Neuroscience
PSY 355	Cognitive Neuroscience

- One 300- or 400-level neuroscience course chosen from the following:

BIO 380	Behavioral Genetics
BIO 422	Neurobiology
BIO 490	Special Topics in Biology (when the focus is neuroscience)
PSY 350	Behavioral Neuroscience
PSY 355	Cognitive Neuroscience
PSY 380	Drugs and Behavior
PSY 410	Advanced Topics in Neuroscience

- Three elective courses chosen from the following list. At least one of these courses must be from biology or chemistry, and at least one must be from outside of biology and chemistry. Students are strongly encouraged to take neuroscience electives outside of their own major, and may ask the program director for permission to use only courses from outside their major.

BCMB 496	Biochemistry/Molecular Biology Senior Research (when topic has been approved by Neuroscience Program Committee)
BIO 202	Biological Core Concepts: Mechanisms (cannot apply if major is biology or BCMB)
BIO 320	Human Genes and Disease
BIO 352	Animal Behavior
BIO 369	Developmental Biology
BIO 380	Behavioral Genetics
BIO 422	Neurobiology
BIO 490	Special Topics in Biology (when the focus is neuroscience)
BIO 495	Biology Senior Thesis (when topic has been approved by Neuroscience Program Committee)
CHEM 330	Structural Biochemistry
CHEM 480	Senior Research (when topic has been approved by Neuroscience Program Committee)
CS 369	Artificial Intelligence and Machine Learning
PHIL 312	Philosophy of Language
PHIL 313	Philosophy of Mind
PHYS 390	Biomedical Imaging
PSY 220	Thinking, Memory, and Problem Solving
PSY 310	Cognition
PSY 350	Behavioral Neuroscience
PSY 355	Cognitive Neuroscience
PSY 375	Health Psychology
PSY 380	Drugs and Behavior
PSY 400	Advanced Topics in Psychology (when topic has been approved by Neuroscience Program Committee)
PSY 410	Advanced Topics in Neuroscience
PSY 490	Senior Thesis (when topic has been approved by Neuroscience Program Committee)
WLL 240	Introduction to Linguistics

At least 12 semester credits must be exclusive to the minor and may not be used in any other set of major/minor requirements.

Faculty

Cliff T. Bekar. Associate professor of economics. Economic history, industrial organization, game theory. PhD 2000, MA 1992, BA 1990 Simon Fraser University.

Kenneth E. Clifton. Professor of biology. Animal behavior, marine biology, ecology of coral reefs. PhD 1988 University of California at Santa Barbara. BA 1981 University of California at San Diego.

Keith Dede. Professor of Chinese, chair of the Department of World Languages and Literatures. Chinese language and linguistics. PhD 1999, MA 1993, BA 1988 University of Washington.

Peter Drake. Associate professor of computer science. Artificial intelligence, data science, software development. PhD 2002 Indiana University. MS 1995 Oregon State University. BA 1993 Willamette University.

Greg J. Hermann. Professor of biology. Developmental genetics and cell biology. PhD 1998 University of Utah. BS 1992 Gonzaga University.

Erik L. Nilsen. Associate professor of psychology, chair of the Department of Psychology (Spring). Cognition, methodology, human-computer interaction. PhD 1991, MA 1986 University of Michigan. BA 1984 Graceland College.

Arthur O'Sullivan. Dr. Robert B. Pamplin Jr. Professor Emeritus of Economics. Urban economics, regional economics, microeconomic theory. PhD 1981 Princeton University. BS 1975 University of Oregon.

Norma Velázquez Ulloa. Associate professor of biology, director of the biochemistry and molecular biology program, co-director of the neuroscience program. Behavioral genetics, neuroscience, developmental biology, neurophysiology, cell biology. PhD 2009 University of California at San Diego. BS 2002 Universidad Nacional Autónoma de México.

Todd Watson. Associate professor of psychology, co-director of the neuroscience program. Cognitive neuroscience, brain and behavior,

statistics. PhD 2005 State University of New York at Stony Brook. MA 2000 Radford University. BS 1997 Pennsylvania State University.

Tamily Weissman. Associate professor of biology, chair of the Department of Biology. Neurobiology. PhD 2004 Columbia University. BA 1992 Pomona College.

Yueping Zhang. Associate professor of psychology. Behavioral neuroscience, brain and behavior, drugs and behavior, cross-cultural psychology. PhD 1996, MA 1992 University of New Hampshire. MD 1985 Shandong Medical University.