

NEUROSCIENCE

Codirectors: Tamily Weissman-Unni and Todd Watson

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 or PSY 252 Introduction to Neuroscience
- 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)
CHEM 421	Neurochemistry
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 200	Investigations in Cell and Molecular Biology (cannot apply if major is biology)
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 421	Neurochemistry
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 380	Topics in Physics (when the focus is 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, chair of the Department of Economics. Economic history, industrial organization, game theory. PhD 2000, MA 1992, BA 1990 Simon Fraser University.

Kenneth E. Clifton. Professor of biology, chair of the Department 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.

Rebecca Copenhaver. Professor of philosophy. Early modern philosophy, philosophy of mind, ethics. PhD 2001, MA 1998 Cornell University. BA 1993 University of California at Santa Cruz.

Janet E. Davidson. Associate professor of psychology, director of academic advising. Infant and child development, developmental psychopathology, internships. PhD 1989, MPhil 1987, MS 1985 Yale University. BS 1975 University of Washington.

Keith Dede. Professor of Chinese. Chinese language and linguistics. PhD 1999, MA 1993, BA 1988 University of Washington.

Peter Drake. Associate professor of computer science. Artificial intelligence/cognitive science. Programming languages. 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.

Janis E. Lochner. Dr. Robert B. Pamplin Jr. Professor of Science, director of the Biochemistry and Molecular Biology Program (spring). Biochemistry. PhD 1981 Oregon Health Sciences University. BS 1976 Allegheny College.

Deborah E. Lycan. Professor of biology. Molecular biology, cell biology, ribosome biogenesis in eukaryotic cells, yeast genetics. PhD 1983 University of Colorado. BA 1975 University of California at San Diego.

Erik L. Nilsen. Associate professor of psychology. 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 of Economics. Urban economics, regional economics, microeconomic theory. PhD 1981 Princeton University. BS 1975 University of Oregon.

Todd Watson. Associate professor of psychology, chair of the Department of Psychology. 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.

Tammy Weissman. Associate professor of biology, co-director of the Neuroscience Program. Neurobiology. PhD 2004 Columbia University. BA 1992 Pomona College.

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