

2009-2010

B.A. in Behavioral Neuroscience

College of Humanities and Social Sciences

College of Sciences and Technology

What Is the Study of Behavioral Neuroscience?

Behavioral neuroscience explores the role of the nervous system in normal and abnormal behavior, thought and emotion. For example, Behavioral Neuroscientists study the biological basis of normal learning and memory as well as psychiatric illnesses such as depression, schizophrenia and drug abuse. (en.wikipedia.org/wiki/Behavioral_neuroscience)

Why Should I Consider This Major?

This interdisciplinary program provides students with the specialized preparation and technological sophistication critical for success in a variety of graduate-training programs, including Neurosciences, Psychology, Pharmacology, Mental Health, and Neurobiology; and health care, including Medicine and Dentistry. For those students who do not anticipate pursuing post-graduate education, the proposed degree program provides an excellent platform for entry-level positions in such areas as biomedical research and the pharmaceutical industry.

How to Apply:

Complete at least 75 undergraduate credits; complete the following courses with a grade point average of 2.9 or higher: CHEM 121, 122, 123; BIOL 204, 205, 206; PSY 101, 220.

After completing the above, submit an application to either Coco Besson in AI 599 or Kim Kolb Ayre in BI 315. Application materials are available at the Behavioral Neuroscience Program website. These materials are also available at the Psychology and Biology Department web pages and AI599 or BI315. The deadline for this application is the end of the 2nd full week of classes fall, winter, spring, and summer quarters. This is a competitive application process.

Mid-Program Checkpoint:

Students intending on completing a Bachelor's of Arts degree in Behavioral Neuroscience within four years should complete the following courses by the start of their junior year. Students are expected to follow all prerequisite requirements for courses and seek early departmental advisement.

Coursework:

PSY 101, 220	BIOL 204, 205, 206
CHEM 121, 122, 123	ENG 101
MATH 114	18 non-science GUR credits

Contact Information:

Behavioral Neuroscience Program
Website:
<http://www.wvu.edu/neuroscience/>

Psychology Department Website:
<http://www.ac.wvu.edu/~psych/>

Biology Department Website:
<http://www.wvu.edu/biology/>

Program Director:
Janet Finlay
AI 572, 360-650-6717
Janet.Finlay@wvu.edu

Psychology Undergraduate
Advisor:
Coco Besson
AI 599, 360-650-2148
Coco.Besson@wvu.edu

Biology Undergraduate Advisor:
Kim Kolb Ayre
BI 315, 360-650-6165
Kim.Kolb@wvu.edu

Sample Careers:

Neuroscientist
Biomedical Researcher
Psychiatrist
Medical Doctor
Dentist
Pharmacist
Veterinarian
Physician Assistant
Pharmaceutical Sales



Behavioral Neuroscience

Major Requirements: 110-111 Credits

Supporting Courses: 24 credits

CHEM 121, 122, 123 General Chemistry I, II, III (5, 5, 4)
Or Chem 125, 126, 225 General Chemistry Honors (5 each)
CHEM 251 Elementary Organic Chemistry (5) or equivalent
MATH 114 Precalculus I (5)

Required Biology Courses: 29 credits

BIOL 204 Introduction to Evolution, Ecology, Biodiversity (4)
BIOL 205 Introduction to Cellular and Molecular Biology (5)
BIOL 206 Introduction to Organismal Biology (5)
BIOL 321 Genetics (4)
BIOL 323 Cell and Molecular Biology (4)
BIOL 325 Ecology (3)
BIOL 432 Evolutionary Biology (4)

Required Psychology Courses: 34 credits

PSY 101 Introduction to Psychology (5)
PSY 220 Introduction to Behavioral Neuroscience (5)
PSY 301, 302, 303 Research Methods (5, 5, 5)
PSY 320 Topics in Behavioral Neuroscience (5)
PSY 328 Techniques in Behavioral Neuroscience (4)

Additional Requirement--Choose One: 4-5 credits

BIO 410 Animal Behavior (4)
PSY 324 Comparative Psychology (5)

Electives under Advisement: 19 credits

BIOL 322 Genetics Lab (4)
BIOL 324 Methods in Molecular Biology (3)
BIOL 403 Physiological Ecology of Animals (5)
BIOL 410 Animal Behavior (4)
BIOL 434 Population Genetics (3)
BIOL 467 Comparative Vertebrate Physiology (3)
BIOL 468 Comparative Vertebrate Physiology Laboratory (3)
BIOL 482 Developmental Biology of Animals (3)
BIOL 300 Directed Independent Study (1-15)*
BIOL 395 Biology Research Participation (1-4)*
BIOL 400 Directed Independent Study (1-15)*
BIOL 494 Biology Research (1-5)*
BIOL 495 Research Communication (1-4)*

PSY 210 Cognition (5)
PSY 310 Sensation and Perception (5)
PSY 319 Cognitive Neuroscience (5)
PSY 321 Learning (5)
PSY 322 Motivation (5)
PSY 323 Psychopharmacology (5)
PSY 410 Seminar in Cognitive Neuroscience (3)
PSY 420 Seminar in Behavioral Neuroscience (3)
PSY 421 Seminar in Learning (3)
PSY 422 Seminar in Motivation (3)
PSY 424 Seminar in Comparative Psychology (3)
PSY 428 Advanced Techniques in Behavioral Neuroscience (4)
PSY 300 Directed Independent Study (1-15)*
PSY 400 Directed Independent Study (1-15)*

**A maximum combined total of 10 credits in PSY 300, 400, or BIOL 300, 395, 400, 494, 495 may be applied to the major.*

Faculty Advisors:

Biology: Roger Anderson, Heather Van Epps, Jose-Serrano-Moreno
Psychology: Janet Finlay, Mike Mana, Jeffrey Grimm, Kelly Jantzen, Jacqueline Rose

Other Biology or Psychology Options:

B.A. Psychology (65 credits)
B.A.Ed. Psychology: Human Development-Elementary (49-54 credits plus 107 credits for the Elementary Education Professional Program)
Minor Psychology (24 credits)
Minor Sport Psychology (30 credits)
B.A. Biology (74 credits)
B.A. Anthropology/Biology (89 including 23 supporting credits)
B.A.Ed. Biology/Chemistry--Secondary (102-107 credits plus 64 credits for the Secondary Education Professional Program)
B.S. Biology (90-95 credits)
B.S. Biology/Anthropology (101-104 credits)
B.S. Cellular and Molecular Biology/Biochemistry (106 credits)
B.S. Biology/Mathematics (104-105 credits)
Minor Biology (43 credits)

These courses are required (or advised) for this major and may be used to satisfy GUR or Writing Proficiency requirements.

QSR: MATH 114

SSC: PSY 101

LSCI: BIO 204, 205, 206

CHEM 121, 122, 123, 251

WP: Three Writing Proficiency points are required for graduation (they are noted as WP1, WP2, and WP3). Check [Classfinder](#) or [Online Timetable](#) for departmental offerings each quarter.