

Neuroscience Co-Major

For information, contact the Department of Biology, 212 Pearson Hall, 513-529-3100 or the Department of Psychology, 100 Psychology building, 513-529-2400; this co-major is offered cooperatively.

The inter-departmental Neuroscience Co-major offers students the opportunity to pursue an in-depth exploration of the biology of individual nerve cells; the organization of nerve cells into a functional nervous system; and the role of the nervous system in behavior and cognition. The co-major is multidisciplinary, including coursework in biology, psychology, chemistry and statistics. It provides a basic framework for students planning advanced work at the graduate level. Students in the co-major must also be enrolled in, and complete, a primary major; the co-major cannot be taken as a stand-alone major. Upon graduation, students are awarded the degree of their primary major; there is no specific degree designation for the co-major.

Program Requirements

(40-43 semester hours)

Code	Title	Credit Hours
Biological Science and Psychology		
BIO/MBI 116	Biological Concepts: Structure, Function, Cellular, and Molecular Biology	4
BIO/PSY 159	Seminar in Neuroscience	1
BIO 203 or MBI 365	Introduction to Cell Biology Molecular and Cell Biology	3
BIO 305	Human Physiology	4
PSY 251	Introduction to Biopsychology	3
Chemistry		
CHM 141 & CHM 144	College Chemistry and College Chemistry Laboratory	5
CHM 142 & CHM 145	College Chemistry and College Chemistry Laboratory	5
Statistics		
Select one course:		3-4
STA 363	Introduction to Statistical Modeling	
PSY 294	Writing and Research Methods in Psychology	
Neuroscience Hours		12-14
Select at least two courses from each area:		
Advanced Biology		
BIO 361	Patterns in Development	
BIO 452	Neuromodulation: Cells to Circuits	
BIO 454	Endocrinology	
BIO 457	Neuroanatomy	
BIO 464	Laboratory in Cell and Molecular Biology	
BIO 465	Animal Behavior	
BIO 466	Bioinformatics Computing Skills	
BIO 469	Neurophysiology	
BIO 471	Molecular Physiology	

Advanced Psychology	
PSY 351	Advanced Biopsychology
PSY 356	Psychopharmacology
PSY 451	Cognitive Neuroscience
PSY 452	Structured Research Experience in Behavioral Neuroscience II
PSY 456	Advanced Biological Bases of Behavior
PSY 458	Capstone Seminar in Neuroscience

Total Credit Hours **40-43**

Strongly recommended but not required courses

Code	Title	Credit Hours
CHM 241 & CHM 244	Organic Chemistry and Organic Chemistry Laboratory	5
CHM 242 & CHM 245	Organic Chemistry and Organic Chemistry Laboratory	5
PHY 161	Physics for the Life Sciences with Laboratory I	4
PHY 162	Physics for the Life Sciences with Laboratory II	4
PHY 181 & PHY 183	General Physics I and General Physics Laboratory I	5
PHY 182 & PHY 184	General Physics II and General Physics Laboratory II	5

An independent research project with BIO 320 or PSY 477