

NEUROSCIENCE MAJOR (BS)

The Bachelor of Science in Neuroscience is designed to provide students with a comprehensive understanding of the interdisciplinary field of neuroscience. The program emphasizes the study of the brain and its functions, drawing on various scientific disciplines. Students will gain a rigorous overview of human neuroanatomy from a functional perspective and develop skills in empirical methods used to study the brain.

Core courses will cover topics ranging from basic principles of neuroscience to neuroanatomy, statistics, and research methods. Students can choose from an array of electives, including courses in psychology, anthropology, biology, and philosophy. Finally, students select from one group of interdisciplinary electives in biology, math, or computer science.

In addition to academic coursework, the program will incorporate High-Impact Practices (HIPS). Chief among them is access to active neuroscience research labs where students can complete independent studies under the mentorship of our faculty. Additionally, the program includes a senior capstone course where students and professors will discuss current research in neuroscience.

Program Learning Outcomes

- Upon completion of this program, students will be able to:
 - Understand the Relationship between Brain and Behavior: Apply neuroscience perspectives to understand brain behavior relationships.
 - Perform Neuroscience Research: Demonstrate the skills necessary to perform neuroscience research and demonstrate proficiency in some neuroscience research procedures.
 - Integrate Knowledge: Integrate relevant knowledge from a wide variety of fields to better understand brain, mind, and behavior interactions.
 - Data Analysis: Organize, manipulate, and analyze scientific datasets using statistical methods.
 - Critical Thinking: Demonstrate critical thinking skills by analyzing and evaluating neuroscience primary literature.
 - Communication Skills: Communicate scientific information in written and oral formats clearly.

Code	Title	Credits
Core Courses		
PSYC 101	Introduction to Psychological Science	3
PSYC 200	Introduction to Neuroscience	3
PSYC 250	Psychological Statistics	4
PSYC 300	Research Methods in Psychology	4
PSYC 491	Senior Capstone in Neuroscience	3
Core Courses Subtotal		17
Breadth Courses		
PSYC 205	Cognitive Psychology	3
PSYC 325	Biological Psychology	3
PSYC 326	Cognitive Neuroscience	3
PSYC 327	Neuropsychology	3
PSYC 328	Psychopharmacology	3
PSYC 420	Neuroanatomy	3
Breadth Courses Subtotal		18
Interdisciplinary Core Courses		
Select one pair of courses		8-10
BIOS 101 & BIOS 102	Bioscience and Organismal Biology	

MATH 221 & MATH 222	Calculus and Analytic Geometry I and Calculus and Analytic Geometry II	
CSCI 241 & CSCI 242	Computer Science I and Computer Science II	
Interdisciplinary Elective Courses		12
ANTH 100	Introduction to Anthropology	
ANTH 202	Human Evolution	
ANTH 312	Anthropology of Language	
ANTH 402	Advanced Human Evolution	
BIOS 105 & BIOS 106	Human Physiology and Anatomy I and Human Physiology and Anatomy II	
or BIOS 300	Human Functional Anatomy	
CSCI 231	Discrete Mathematics	
or MATH 231	Discrete Mathematics (Same As CSCI 231)	
CSCI 309	Probability and Statistics	
CSCI 333	Programming Languages	
CSCI 405	Artificial Intelligence	
CSCI 410	Introduction to Data Science	
CSCI 412	Data Mining and Machine Learning	
PHIL 101	Introduction to Philosophy	
PHIL 201	Logic	
PHIL 212	Philosophy of Science	
or PHIL 312	Philosophy of Science	
PSYC 301	Learning and Memory	
PSYC 306	Sensation and Perception	
PSYC 329	Brain Development and Plasticity	
Total Credits		55-57

General University Degree Requirements (Bachelor's Degree)

In addition to individual program requirements, students must also fulfill the following requirements:

Requirement	Credits
Skills	7-8
General Education	36
Foreign Language**	6-8
Ethnic Diversity	3
Total	52-55

** Transfer students in sustainable management, and health information management and technology collaborative, online degree-completion programs, the business management online degree-completion program, and the flexible option degree-completion program will be exempt from the university's foreign language requirement. See appropriate academic section for further information.

Skills Requirement (<https://catalog.uwp.edu/policies/#skills>)

Code	Title	Credits
Reading and Writing		
ENGL 101	Composition and Reading	3
Computational Skills		
Select one of the following:		4-5
MATH 102	Quantitative Reasoning	

MATH 103	Elementary Statistics	
MATH 104	College Mathematics with Applications	
MATH 111	College Algebra I	
Total Credits		7-8

General Education (<https://catalog.uwp.edu/policies/#general>)

- General Education Course List (<https://catalog.uwp.edu/programs/general-education-program/#coursestext>)

Foreign Language (<https://catalog.uwp.edu/policies/#language>)

Ethnic Diversity (<https://catalog.uwp.edu/policies/#ethnic>)

Degree Requirements

Requirement	Credits
Minimum Total Credits	120
Upper Level Credits (300 level or above)	36
Residency	30

Cumulative Degree GPA: 2.0 minimum