

BS in Neuroscience

Program Codes:

20FT0323BS

Degree Requirements

To earn a Bachelor of Science in Neuroscience degree from UIC, students must complete university, college, and department degree requirements. The curriculum requires a minimum of 120 semester hours as distributed below. Students should consult the [College of Liberal Arts and Sciences](#) section for additional degree requirements and college academic policies.

Code	Title	Hours
Summary of Requirements		
Requirements for the Curriculum		120
Total Hours		120

Requirements for the Curriculum

The requirements for the curriculum include the courses necessary to complete the General Education and Writing-in-the-Discipline requirements described in the [College of Liberal Arts and Sciences](#) section.

Code	Title	Hours
Required Courses		
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
ENGL 161	Academic Writing II: Writing for Inquiry and Research	3
Foreign language (the equivalent of two years of a single language at the college level)		0-16
Exploring World Cultures course ^a		3
Understanding the Creative Arts course ^a		3
Understanding the Past course ^a		3
Understanding U.S. Society course ^a		3
PSCH 100	Introduction to Psychology ^b	4
MATH 170	Calculus for the Life Sciences ^{c,d}	4
or MATH 180	Calculus I	
BIOS 110	Biology of Cells and Organisms ^c	4
BIOS 120	Biology of Populations and Communities ^c	4
BIOS 220	Genetics	3
BIOS 222	Cell Biology	3
Select one of the following sequences in general chemistry:		10
CHEM 116	Honors and Majors General and Analytical Chemistry I ^c	
CHEM 118	Honors and Majors General and Analytical Chemistry II ^c	
OR		
CHEM 122	Matter and Energy ^e	
CHEM 123	Foundations of Chemical Inquiry I ^{c,e}	
CHEM 124	Chemical Dynamics ^e	
CHEM 125	Foundations of Chemical Inquiry II ^{c,e}	

CHEM 230	Organic Chemistry of Biological Systems	3-4
or CHEM 232	Structure and Function	
CHEM 233	Synthesis Techniques Laboratory	2
PHIL 202	Philosophy of Psychology ^f	3
PSCH 242	Introduction to Research in Psychology	4
PSCH 343	Statistical Methods in Behavioral Science	4
BIOS/PHIL/PSCH 484	Neuroscience I	3
BIOS/PHIL/PSCH 485	Neuroscience II	3
BIOS 286	The Biology of the Brain	3
or PSCH 262	Behavioral Neuroscience	
Select one of the following:		3
PHIL 201	Theory of Knowledge	
PHIL 203	Metaphysics	
PHIL 204	Introduction to the Philosophy of Science	
PHIL 206	Introduction to the Philosophy of Language	
PHIL 403	Metaphysics	
PHIL 401	Theory of Knowledge	
PHIL 402	Topics in Philosophy of Mind	
PHIL 404	Philosophy of Science	
Select two of the following laboratory courses:		6-8
BIOS 483	Neuroanatomy	
BIOS 486	Animal Behavior and Neuroethology	
BIOS 489	Cellular Neurobiology Laboratory	
PSCH 351	Laboratory in Perception	
PSCH 361	Laboratory in Learning and Conditioning	
PSCH 363	Laboratory in Behavioral Neuroscience	
PSCH 367	Laboratory in Cognitive Neuroscience	
BME 476	Neural Engineering I Laboratory	
BIOS 482	Molecular and Developmental Neurobiology Laboratory	
Select one of the following:		3
PSCH 350	Sensation and Perception	
PSCH 360	Learning and Conditioning	
PSCH 366	Cognitive Neuroscience	
Nine semester hours in advanced-level courses in biological sciences, chemistry, philosophy, psychology, or any physics courses to be chosen in consultation with an academic advisor. ^g		9
Electives to complete degree requirement of 120 hours		5-24
Total Hours		120

a Students should consult the General Education section of the catalog for a list of approved courses in this category.

b This course is approved for the Understanding the Individual and Society General Education category.

c This course is approved for the Analyzing the Natural World General Education category.

- d Completion of MATH 121, the prerequisite to MATH 180, or placement into MATH 170 or MATH 180 fulfills the LAS Quantitative Reasoning requirement
- e General Education credit is given for successful completion of both CHEM 122/CHEM 123 or CHEM 124/CHEM 125.
- f PHIL 202 fulfills the LAS Writing-in-the-Discipline requirement.
- g BIOS 386 is also recommended from the biological sciences electives to develop written and oral communication skills.

Recommended Plan of Study

Course	Title	Hours
First Year		
Fall Semester		
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
MATH 170 or MATH 180	Calculus for the Life Sciences ^a or Calculus I	4
Select one of the following:		5
CHEM 116	Honors and Majors General and Analytical Chemistry I	
CHEM 122 & CHEM 123	Matter and Energy and Foundations of Chemical Inquiry I	
General Education Requirement		3
Hours		15
Spring Semester		
ENGL 161	Academic Writing II: Writing for Inquiry and Research	3
Select one of the following:		5
CHEM 118	Honors and Majors General and Analytical Chemistry II	
CHEM 124 & CHEM 125	Chemical Dynamics and Foundations of Chemical Inquiry II	
BIOS 110 or BIOS 120	Biology of Cells and Organisms ^b or Biology of Populations and Communities	4
PSCH 100	Introduction to Psychology	4
Hours		16
Second Year		
Fall Semester		
PSCH 242	Introduction to Research in Psychology	4
CHEM 230 or CHEM 232	Organic Chemistry of Biological Systems or Structure and Function	3-4
BIOS 110 or BIOS 120	Biology of Cells and Organisms or Biology of Populations and Communities	4
Foreign Language		4
Hours		15-16
Spring Semester		
CHEM 233	Synthesis Techniques Laboratory	2
BIOS 222	Cell Biology	3
PSCH 262 or BIOS 286	Behavioral Neuroscience or The Biology of the Brain	3
General Education Requirement		3
Foreign Language		4
Hours		15
Third Year		
Fall Semester		
PHIL 202 or PSCH 360	Philosophy of Psychology or Learning and Conditioning	3
BIOS 220	Genetics	3
Advanced-level Elective in BIOS, CHEM, PHIL, or PSCH, or any PHYS		3
General Education Requirement		3
Foreign Language		4
Hours		16
Spring Semester		
PSCH 343	Statistical Methods in Behavioral Science	4

PHIL 202 or PSCH 366	Philosophy of Psychology or Cognitive Neuroscience	3
Foreign Language		4
Advanced level BIOS, CHEM, PHIL, PSCH or any PHYS		3
Hours		14
Fourth Year		
Fall Semester		
BIOS 484 or PSCH 484 or PHIL 484	Neuroscience I or Neuroscience I or Neuroscience I	3
PHIL 201 or PHIL 203 or PHIL 204 or PHIL 401 or PHIL 402 or PHIL 403 or PHIL 404	Theory of Knowledge or Metaphysics or Introduction to the Philosophy of Science or Theory of Knowledge or Topics in Philosophy of Mind or Metaphysics or Philosophy of Science	3
BIOS/PSCH lab		3-4
General Education Requirement		3
Elective		3
Hours		15-16
Spring Semester		
BIOS 485 or PHIL 485 or PSCH 485	Neuroscience II or Neuroscience II or Neuroscience II	3
Advanced level BIOS, CHEM, PHIL, PSCH or any PHYS		3
BIOS/PSCH lab		3-4
Elective		5
Hours		14-15
Total Hours		120

- a MATH 170 or MATH 180, with a grade of C or better, satisfies the Quantitative Reasoning requirement.
- b The two Analyzing the Natural World and the two additional General Education course requirements can be satisfied with BIOS 110, BIOS 120 and CHEM 122, CHEM 123, CHEM 124, CHEM 125.