

Behavioral Neuroscience, BS (New York)

The behavioral neuroscience curriculum focuses on the biological bases underlying behavior under healthy and pathological states. The program combines the disciplines of biology and psychology with a strong background in basic physical sciences and mathematics to understand how the behavior of humans and animals is controlled by physiological systems. Students gain a solid foundation in the anatomical and functional specializations of the brain and neural mechanisms from neurons to circuits to networks. Students then choose from a range of advanced electives to delve deeply into diverse specializations and current topics in the field.

Note: Due to overlap in course content, double majoring in behavioral neuroscience with any of the following majors is not permitted: psychology, biology, cell and molecular biology, or biochemistry.

This program is currently only available to former Marymount Manhattan College students who are eligible for continued enrollment at Northeastern University. This program includes required courses that will be taught on ground at the Northeastern New York City campus.

Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

Universitywide Requirements

All undergraduate students are required to complete the Universitywide Requirements (<https://catalog.northeastern.edu/undergraduate/university-academics/university-wide-requirements/>).

NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (<https://catalog.northeastern.edu/undergraduate/university-academics/general-education-requirements/#nupathtext>).

New York State Liberal Arts and Sciences Requirements

All undergraduate students enrolled in programs at the New York campus are required to fulfill New York State Liberal Arts and Sciences requirements (<https://catalog.northeastern.edu/undergraduate/university-academics/general-education-requirements/#nyliberalartsandsciencestext>).

Behavioral Neuroscience Foundation Courses

Code	Title	Hours
Introduction to College		
INSC 1000	Science at Northeastern	1
Foundation Requirements		
BIOL 1111	General Biology 1	4
BIOL 1112	Lab for BIOL 1111	1
BIOL 1113	General Biology 2	4
BIOL 1114	Lab for BIOL 1113	1
BIOL 2301 and BIOL 2302	Genetics and Molecular Biology and Lab for BIOL 2301	5
BIOL 3405	Neurobiology	4
PSYC 1101	Foundations of Psychology	4
PSYC 3200	Clinical Neuroanatomy	4
PSYC 3458	Biological Psychology	4
Complete one of the following:		4-5
ENVR 2500 and ENVR 2501	Biostatistics and Lab for ENVR 2500	
PSYC 2320	Statistics in Psychological Research	

Behavioral Neuroscience Advanced Courses

Code	Title	Hours
Complete three of the following:		12
BIOL 3415	Current Topics in Behavioral Neuroscience	

BIOL 3605	Developmental Neurobiology
PSYC 4510	Psychopharmacology
One course may be an experiential course:	
BNSC 4991	Research
BNSC 4994	Internship

Behavioral Neuroscience Supporting Courses

Code	Title	Hours
Biology		
Complete one of the following:		4-5
BIOL 3421 and BIOL 3422	Microbiology and Lab for BIOL 3421	
BIOL 3603	Mammalian Systems Physiology	
BIOL 3611 and BIOL 3612	Biochemistry and Lab for BIOL 3611	
BIOL 4707	Cell and Molecular Biology	
BIOL 5591	Advanced Genomics	
Chemistry		
CHEM 1161 and CHEM 1162	General Chemistry for Science Majors and Lab for CHEM 1161	5
CHEM 2311 and CHEM 2312	Organic Chemistry 1 and Lab for CHEM 2311	5
CHEM 2313 and CHEM 2314	Organic Chemistry 2 and Lab for CHEM 2313	5
Mathematics		
MATH 1341 or MATH 1241	Calculus 1 for Science and Engineering Calculus 1	4
Physics		
PHYS 1145 and PHYS 1146	Physics for Life Sciences 1 and Lab for PHYS 1145	5
Psychology		
PSYC 3452	Sensation and Perception	4
Complete one of the following:		4
PSYC 3404	Developmental Psychology	
PSYC 3406	Clinical Psychology and Mental Health	
PSYC 3464	Psychology of Language	
PSYC 3466	Cognition	
Research		
BIOL 2309	Biology Project Lab	4

Writing Requirements

Code	Title	Hours
ENGW 1111 or ENGW 1102	First-Year Writing First-Year Writing for Multilingual Writers	4
ENGW 3307 or ENGW 3315 or ENGW 3302	Advanced Writing in the Sciences Interdisciplinary Advanced Writing in the Disciplines Advanced Writing in the Technical Professions	4

Capstone

Code	Title	Hours
Complete one of the following:		4-5
BIOL 4701	Biology Capstone	
BNSC 4991 and BNSC 4900	Research and Behavioral Neuroscience Capstone	

NUPath Requirements Met by Major

- Analyzing and Using Data (AD)
- Conducting Formal and Quantitative Reasoning (FQ)
- Demonstrating Thought and Action in a Capstone
- Engaging with the Natural and Designed World (ND)
- Integrating Knowledge and Skills Through Experience
- Understanding Societies and Institutions (SI)
- Writing Across Audiences and Genres

Behavioral Neuroscience Major Credit Requirement

Complete 91 semester hours in the major.

Science GPA Requirement (Behavioral Neuroscience)

A minimum 2.000 GPA in the following course codes is required: BIOL, BNSC, CHEM, ENVR, MATH, PHYS, PSYC

Optional Co-op

Code	Title	Hours
Successful completion of EXED 2000 is required for participation in co-op. (https://catalog.northeastern.edu/undergraduate/academic-policies-procedures/cooperative-education/)		
EXED 2000	Professional Development for Co-op	1
COOP 3945	Co-op Work Experience	0
or COOP 3946	Co-op Work Experience—Half Time	
or COOP 3947	Co-op Work Experience Abroad—Half Time	
or COOP 3948	Co-op Work Experience Abroad	

Program Requirement

132 total semester hours required

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