

BEHAVIORAL-NEUROSCIENCE MAJOR, BS

Campus: NYC

This interdisciplinary degree prepares students for further education in the health professions, medical school, mental health careers, and different graduate schools. It also prepares students for employment as laboratory technicians at medical, mental health, university, government, start-up, biotechnology, and other settings. Coursework includes core Biology, Neuroscience, and Psychology courses, and a wide variety of electives.

Students are required to pass a comprehensive examination given as part of BIO 490 (<https://catalog.pace.edu/search/?P=BIO%20490>) Introduction to Research in the Biological Sciences that assesses the ability to integrate and synthesize basic concepts in Biology. Students must register for BIO 493 (<https://catalog.pace.edu/undergraduate/courses-a-z/bio/>) to take the exam.

Major Completion Summary

Requirement	Credits
University Core Requirements	44-55
Major Requirements	49-53
Open Electives	20-35
Total Credits	128

University Core Requirements (44-55 Credits)

See complete University Core (<http://catalog.pace.edu/undergraduate/university-core-curriculum/>) requirements.

Includes several of the major-required Math, Biology and Physics courses listed below:

Code	Title	Credits
Major-Required Math and Science Courses		
Specific courses required for University Core:		
MAT 131	Calculus I (Foundation Math)	4
BIO 101	General Biology I (Lab Science)	4
PSY 112	Introduction to Psychology (Areas of Knowledge/HSN)	4
In Depth Sequence		
CHE 111	General Chemistry I	4
CHE 112	General Chemistry II	4
CHE 223	Organic Chemistry I	5
Other Core Requirements for Major		
BIO 101	General Biology I	4
BIO 102	General Biology II	4
BIO 231	Genetics	4

Major Requirements (49-53 Credits)

Code	Title	Credits
Required Major Courses ¹		
BIO 102	General Biology II	4
BIO 231	Genetics	4
BIO 251	Principles of Human Anatomy	4
BIO 325	Neurobiology	3
BIO 334	General Physiology	4
BIO 480	Research in Biology	3
or BIO 395	Independent Study in Biology	
or BIO 491	Internship in Biology	
BIO 493	Major Field Test in Biology	0
BNS 410	Systems Behavioral Neuroscience	4
BIO 490	Introduction to Research in the Biological Sciences	3
PSY 209	Health Psychology	3

PSY 315	Cognitive Psychology	4
MAT 141 or PSY 205	Introductory Statistics for the Life Sciences Statistics in Psychology and Allied Fields	4
Major Electives for the Biology Track		
Select two PSY and one BIO course; 9-13 credits from the following:		9-13
BIO 222	Plants and People	
BIO 232	Developmental Biology	
BIO 264	Microbiology	
BIO 305	Evolutionary Biology	
BIO 322	Animal Behavior	
BIO 336	Genomics	
BIO 345	Introduction to Toxicology	
BIO 346	Introduction to Basic Pharmacology	
BIO 335	Molecular and Cellular Biology (recommended)	
PSY 206	Psychology and Law	
PSY 227	Psychology of Women	
PSY 241	Psychology of Alcoholism and Substance Abuse	
PSY 243	Applied Social Psychology	
PSY 277	Evolutionary Psychology	
PSY 302	Child Psychology	
PSY 296	Approved Psychology Topics Course	
PSY 303	Adolescent Psychology	
PSY 304	Social Psychology	
PSY 307	Psychology of Personality	
PSY 320	Abnormal Psychology I	
PSY 321	Abnormal Psychology II	
PSY 323	Psychology of Learning	
PSY 337	Introduction to Psychological Counseling	
PSY 375	Lifespan Development Psychology	
Total Credits		49-53

¹ Students may also take BIO 395 Independent Study in Biology or BIO 491 Internship in Biology as part of the Independent Research in Biology requirement.

² Two Psychology courses from the approved list below and one approved Biology course (BIO 335 Molecular and Cellular Biology is recommended.)

³ PSY 296L Special Topics: Psychology of Stress is the approved PSY 296 Topics course.

Open Electives (20-35 Credits)

Code	Title	Credits
Open Electives		
Select 20-35 credits ¹		20-35
Total Credits		20-35

¹ Includes UNV 101 First-Year Seminar (1 credit) - required of first-year freshman students.

Pre-med students should consult with pre-med advisors.

Psychology Path

In addition to the courses listed below, students are required to complete two courses with the Anti-Racism Education attribute attached. These courses may be taken during any semester of their education. See advisor for more information.

Course	Title	Credits
First Year		
Fall		
BIO 101	General Biology I (Writing Intensive (WE))	0-4
CHE 111	General Chemistry I	0-4
UNV 101	First-Year Seminar: Introduction to University Community	1
Take any one remaining Area of Knowledge course		3
First Second Language Course. See Advisor for guidelines		3
Credits		7-15
Spring		
BIO 102	General Biology II	0-4
CHE 112	General Chemistry II	0-4
PSY 112	Introduction to Psychology (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
ENG 110	Composition	3
Second Language Course, if applicable		3
Credits		10-18
Second Year		
Fall		
BIO 231	Genetics	0-4
CHE 223	Organic Chemistry I	0-5
CIS 101	Introduction to Computing	0-3
PSY 315	Cognitive Psychology	4
Credits		4-16
Spring		
ENG 120	Critical Writing	4
PSY 209	Health Psychology	3
One elective course in BIO (BIO 335/BIO 335A (Writing Enhanced (WE) recommended)		5
Take any one remaining Area of Knowledge course		3
Credits		15
Third Year		
Fall		
BIO 251	Principles of Human Anatomy	0-4
BIO 325	Neurobiology	3
MAT 131	Calculus I	0-4
ENG 201	Writing in the Disciplines	3-4
Civic Engagement (CE) elective		3
Credits		9-18
Spring		
BIO 334	General Physiology	0-4
MAT 141 or PSY 205	Introductory Statistics for the Life Sciences or Statistics in Psychology and Allied Fields	4
BNS 410	Systems Behavioral Neuroscience	4
One elective course in PSY or BIO from approved list		4
Credits		12-16
Fourth Year		
Fall		
PSY 380	Experimental Psychology I	0-4
COM 200	Public Speaking	3
BIO 493	Major Field Test in Biology	0
One elective course in PSY from approved list		4
Take two remaining Area of Knowledge, Learning Community courses		6
Credits		13-17

Spring

PSY 381	Experimental Psychology II	0-4
Take any one remaining Area of Knowledge course		3
Take any one remaining Area of Knowledge course		3
Open Elective Course		4
Open Elective Course		4
Credits		14-18
Total Credits		84-133

Pre-Med

In addition to the courses listed below, students are required to complete two courses with the Anti-Racism Education attribute attached. These courses may be taken during any semester of their education. See advisor for more information.

Course	Title	Credits
First Year		
Fall		
BIO 101	General Biology I (Writing Intensive (WE))	0-4
CHE 111	General Chemistry I	0-4
ENG 110	Composition	3
UNV 101	First-Year Seminar: Introduction to University Community	1
First Second Language Course. See Advisor for guidelines		3
Credits		7-15
Spring		
BIO 102	General Biology II	0-4
CHE 112	General Chemistry II	0-4
PSY 112	Introduction to Psychology (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
Second Language Course, if applicable		3
Credits		7-15
Second Year		
Fall		
BIO 231	Genetics	0-4
CHE 223	Organic Chemistry I	0-5
CIS 101	Introduction to Computing	0-3
PSY 315	Cognitive Psychology	4
Credits		4-16
Spring		
ENG 120	Critical Writing	4
PSY 209	Health Psychology	3
One elective course in BIO (BIO 335/BIO 335A, Writing Enhanced (WE) recommended)		5
One major elective course in subject PSY from approved list		4
Credits		16
Third Year		
Fall		
BIO 251	Principles of Human Anatomy	0-4
BIO 325	Neurobiology	3
MAT 131	Calculus I	0-4
ENG 201	Writing in the Disciplines	3-4
Civic Engagement (CE) elective		3
Credits		9-18
Spring		
BIO 334	General Physiology	0-4
MAT 141 or PSY 205	Introductory Statistics for the Life Sciences or Statistics in Psychology and Allied Fields	4

BNS 410	Systems Behavioral Neuroscience	4
CHE 224	Organic Chemistry II	0-5
Credits		8-17
Fourth Year		
Fall		
SOC 102	Introduction to Sociology	3
BIO 490	Introduction to Research in the Biological Sciences (Writing Enhanced (WE) course)	0-3
COM 200	Public Speaking	3
BIO 327	Cellular Biochemistry	4
PHY 101 or PHY 111	College Physics I or General Physics I	0-4
BIO 493	Major Field Test in Biology	0
Credits		10-17
Spring		
BIO 395 or BIO 480 or BIO 491	Independent Study in Biology or Research in Biology or Internship in Biology	3
PHY 102 or PHY 112	College Physics II or General Physics II	0-4
Take any one remaining Area of Knowledge and Learning Community (LC) course		3
Take any one remaining Area of Knowledge and Learning Community (LC) course		3
One major elective course in subject PSY from approved list		3
Credits		12-16
Total Credits		73-130

General Path

In addition to the courses listed below, students are required to complete two courses with the Anti-Racism Education attribute attached. These courses may be taken during any semester of their education. See advisor for more information.

Course	Title	Credits
First Year		
Fall		
BIO 101	General Biology I (Writing Intensive (WE))	0-4
CHE 111	General Chemistry I	0-4
UNV 101	First-Year Seminar: Introduction to University Community	1
Take any one remaining Area of Knowledge course		3
First Second Language Course. See Advisor for guidelines		3
Credits		7-15
Spring		
BIO 102	General Biology II	0-4
CHE 112	General Chemistry II	0-4
PSY 112	Introduction to Psychology (Analysis of Human, Social, and Natural Phenomena (AOK5))	4
ENG 110	Composition	3
Second Language Course, if applicable		3
Credits		10-18
Second Year		
Fall		
BIO 231	Genetics	0-4
CHE 223	Organic Chemistry I	0-5
CIS 101	Introduction to Computing	0-3
PSY 315	Cognitive Psychology	4
Credits		4-16

Spring

ENG 120	Critical Writing	4
PSY 209	Health Psychology	3
One elective course in BIO (BIO 335/BIO 335A (Writing Enhanced (WE) recommended)		5
Take any one remaining Area of Knowledge course		3
Credits		15

Third Year**Fall**

BIO 251	Principles of Human Anatomy	0-4
BIO 325	Neurobiology	3
MAT 131	Calculus I	0-4
ENG 201	Writing in the Disciplines	3-4
Civic Engagement (CE) elective		3
Credits		9-18

Spring

BIO 334	General Physiology	0-4
MAT 141 or PSY 205	Introductory Statistics for the Life Sciences or Statistics in Psychology and Allied Fields	4
BNS 410	Systems Behavioral Neuroscience	4
One elective course in PSY from approved list		4
Credits		12-16

Fourth Year**Fall**

BIO 490	Introduction to Research in the Biological Sciences (Writing Enhanced (WE) course)	3
BIO 493	Major Field Test in Biology	0
COM 200	Public Speaking	3
One elective course in PSY from approved list		4
Take two remaining Area of Knowledge, Learning Community courses		6
Credits		16

Spring

PSY 381 or BIO 480 or BIO 491	Experimental Psychology II or Research in Biology or Internship in Biology	3
Take any one remaining Area of Knowledge course		3
Take any one remaining Area of Knowledge course		3
Open Elective Course		4
Open Elective Course		4
Credits		17
Total Credits		90-131