

Mathematics and Psychology, BS (Boston)

In the BS Mathematics and Psychology program, courses from both fields help lay the groundwork for strong basic training that seeks to prepare the student toward developing psychological models using mathematics.

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/nupath/>).

Mathematics Requirements

Code	Title	Hours
Problem Solving		
MATH 1365	Introduction to Mathematical Reasoning	4
Calculus		
MATH 1341	Calculus 1 for Science and Engineering	4
MATH 1342	Calculus 2 for Science and Engineering	4
MATH 2321	Calculus 3 for Science and Engineering	4
Intermediate and Advanced Mathematics		
MATH 2341	Differential Equations and Linear Algebra for Engineering	4
MATH 2331	Linear Algebra	4
MATH 3081	Probability and Statistics	4
Math Electives		
Complete two courses in the following range that are not required in the requirements above:		8
MATH 3001 to MATH 5999		

Psychology Requirements

Code	Title	Hours
Introductory Course		
PSYC 1101	Foundations of Psychology	4
Statistics		
Complete the following course. Students who receive transfer credit for the Advanced Placement Statistics exam may complete the 1 semester hour PSYC 2315 course (requires department permission).		4-5
PSYC 2320	Statistics in Psychological Research	
Area A (Personality/Social Basis of Behavior)		
Complete two of the following:		8
PSYC 3400	Personality	
PSYC 3402	Social Psychology	
PSYC 3404	Developmental Psychology	
PSYC 3406	Clinical Psychology and Mental Health	
Area B (Biological/Cognitive Basis of Behavior)		
Complete two of the following:		8
PSYC 3450	Learning and Motivation	
PSYC 3452	Sensation and Perception	
PSYC 3458	Biological Psychology	
PSYC 3464	Psychology of Language	
PSYC 3466	Cognition	

Psychology Laboratory

Complete one of the following:		4
PSYC 4600	Laboratory in Research Design	
PSYC 4604	Laboratory in Learning and Motivation	
PSYC 4606	Laboratory in Biological Psychology	
PSYC 4610	Laboratory in Psycholinguistics	
PSYC 4612	Laboratory in Cognition	
PSYC 4614	Laboratory in Social Psychology	
PSYC 4616	Laboratory in Personality	
PSYC 4622	Laboratory in Sensation and Perception	
PSYC 4624	Laboratory in Affective Science	
PSYC 4626	Laboratory in Life-Span Emotional Development	
PSYC 4628	Laboratory in Developmental Psychology	
Psychology Capstone Requirement		
Complete one of the following:		4
PSYC 4656	Seminar in Biological Psychology	
PSYC 4658	Seminar in Psycholinguistics	
PSYC 4660	Seminar in Cognition	
PSYC 4662	Seminar in Personality	
PSYC 4664	Seminar in Social Psychology	
PSYC 4666	Seminar in Clinical Psychology	
PSYC 4668	Seminar in Sensation and Perception	
PSYC 4674	Seminar in Cognitive Neuroscience	
PSYC 4676	Seminar in Developmental Psychology	
PSYC 4682	Seminar in Learning and Motivation	
Psychology Elective		
Any PSYC course in the 3000 range and up		4
Integrative Requirement		
Code	Title	Hours
PSYC 4540	Quantitative Topics in Psychology and Behavioral Neuroscience	4
Supporting Courses		
Code	Title	Hours
Introduction to College		
INSC 1000	Science at Northeastern	1
Experiential Learning Introduction		
EESC 2000	Professional Development for Co-op	1
Writing Requirements		
ENGW 3307	Advanced Writing in the Sciences	4
or ENGW 3315	Interdisciplinary Advanced Writing in the Disciplines	

NUPath Requirements

The following NUPath Requirements are met by the major:

- Analyzing and Using Data (AD)
- Conducting Formal and Quantitative Reasoning (FQ)
- Demonstrating Thought and Action in a Capstone (CE)
- Engaging with the Natural and Designed World (ND)
- Understanding Societies and Institutions (SI)

Other NUPath requirements may be fulfilled by electives in the program.

Mathematics and Psychology Major Credit Requirement

Complete 76 semester hours in the major.

Science GPA Requirement

A minimum 2.000 GPA in the following course codes is required: MATH, PSYC.

Program Requirement

128 total semester hours required

Plan of Study**Sample Plans of Study****FOUR YEARS, TWO CO-OPS****Year 1**

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
INSC 1000 or MATH 1000		1 PSYC Area A		4 PSYC Area B		4 Open Elective	4
PSYC 1101		4 Open Elective		4 MATH 1342		4 Open Elective	4
MATH 1365		4 MATH 1341		4			
ENGW 1111		4 NUpath IC		4			
NUpath EI		4					
	17		16		8		8

Year 2

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
MATH 2321		4 MATH 2341		4 PSYC Elective		4 Co-op	0
PSYC Area A		4 PSYC Area B		4 Open Elective		4	
PSYC 2320		4 Open Elective		4			
NUpath DD		4 MATH Elective		4			
		EESC 2000		1			
	16		17		8		0

Year 3

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
Co-op		0 MATH 2331		4 MATH 3081		4 Co-op	0
		PSYC Lab		4 Open Elective		4	
		Advanced Writing		4			
		PSYC 4540		4			
	0		16		8		0

Year 4

Fall	Hours	Spring	Hours
Co-op		0 PSYC Seminar	4
		Math Elective	4
		NUpath ER	4
		Open Elective	4
	0		16

Total Hours: 130

FIVE YEARS, THREE CO-OPS**Year 1**

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
ENGW 1111		4 MATH 1341		4 Vacation		Vacation	
MATH 1365		4 PSYC Area A		4			
PSYC 1101		4 NUpath IC		4			
MATH 1000 or INSC 1000		1 Open elective		4			
NUpath EI		4					
	17		16		0		0

Year 2

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
MATH 1342		4 EESC 2000		1 Vacation		Co-op	0

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PSYC 2320	4	MATH 2321	4				
PSYC Area B	4	PSYC Area A	4				
NUpath DD	4	MATH elective	4				
		Open elective	4				
	16		17		0		0
Year 3							
Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
Co-op	0	MATH 2331	4	MATH 2341	4	Co-op	0
		PSYC Area B	4	Adv writing	4		
		PSYC elective	4				
		Open elective	4				
	0		16		8		0
Year 4							
Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
Co-op	0	MATH 3081	4	Open elective	4	Co-op	0
		PSYC 4540	4	Open elective	4		
		PSYC lab	4				
		NUpath ER	4				
	0		16		8		0
Year 5							
Fall	Hours	Spring	Hours				
Co-op	0	PSYC seminar	4				
		MATH elective	4				
		Open elective	4				
		Open elective	4				
	0		16				

Total Hours: 130