Mathematics and Sociology, BS (Boston)

In the mathematics and sociology combined-major BS program, sociology and mathematics courses help lay the groundwork for strong basic training that seeks to prepare students for developing sociological 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
Introduction to College		
INSC 1000	Science at Northeastern	1
or SOCL 1000	Sociology at Northeastern	
Experiential Learning Introduction		
EESC 2000	Professional Development for Co-op	1
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 2331	Linear Algebra	4
MATH 2341	Differential Equations and Linear Algebra for Engineering	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		

Sociology Requirements

Code	Title	Hours
Sociology Required Courses		
SOCL 1101	Introduction to Sociology	4
SOCL 2320	Statistical Analysis in Sociology	4
or INSH 3102	Introduction to Statistics in the Social Sciences	
SOCL 2321	Research Methods in Sociology	4
or INSH 3101	Research Methods in the Social Sciences	
SOCL 3300	Social Theory	4
Sociology Electives		
Introductory Elective		
Complete one course between SOCL 1101 and SOCL 1999 not used to satisfy other requirements.		4
Intermediate Elective		
Complete two courses between SOCL 2000 and SOCL 2999 not used to satisfy other requirements.		8
Advanced Elective		
Complete one course between SOCL 4000 and SOCL 4999 not used to satisfy other requirements.		4

Capstone Requirement

SOCL 4600	Senior Seminar	4

Integrative Requirement

Code	Title	Hours
Complete one of the following:		4
MATH 4025	Applied Mathematics Capstone	
MATH 5131	Introduction to Mathematical Methods and Modeling	
SOCL 1280	The Twenty-First-Century Workplace	
SOCL 2485	Environment, Technology, and Society	
SOCL 4528	Technology and Society	

Writing Requirements

Code	Title	Hours
ENGW 1111	First-Year Writing	4
or ENGW 1102	First-Year Writing for Multilingual Writers	
ENGW 3315	Interdisciplinary Advanced Writing in the Disciplines	4
or ENGW 3307	Advanced Writing in the Sciences	
or ENGW 3308	Advanced Writing in the Social Sciences	

NUPath Requirements

The following NUPath Requirements are met by the major:

- Interpreting Culture (IC)
- Conducting Formal and Quantitative Reasoning (FQ)
- Analyzing and Using Data (AD)
- Demonstrating Thought and Action in a Capstone (CE)

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

Mathematics and Sociology Combined Major Credit Requirement

Complete 76 semester hours in the major.

Science GPA Requirement (Mathematics)

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

Program Requirement

128 total semester hours required

Plan of Study
Plan of Study

FOUR YEARS, TWO CO-OPS

Year 1

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
SOCL 1000 or MATH 1000	1	MATH 1342	4	Elective	4	Elective	4
ENGW 1111	4	SOCL 2320 or INSH 3102	4	Elective	4	Elective	4
SOCL 1101	4	SOCL 3300	4				
MATH 1341	4	Elective	4				
MATH 1365	4						
	17		**16**		**8**		**8**

Year 2

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
MATH 2321	4	MATH 2341	4	Elective	4	Co-op	0
SOCL 2321 or INSH 3101	4	EESC 2000 or SOCL 1000	1	Elective	4		
SOCL elective	4	MATH elective	4				
Elective	4	SOCL elective	4				

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
		Elective	4				
	16		**17**		**8**		**0**

Year 3

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
Co-op	0	MATH 2331	4	Elective	4	Co-op	0
		MATH elective	4	Elective	4		
		SOCL elective	4				
		Elective	4				
	0		**16**		**8**		**0**

Year 4

Fall	Hours	Spring	Hours
Co-op	0	MATH 3081	4
		SOCL elective	4
		Elective	4
		Elective	4
	0		**16**

Total Hours: 130