## Mathematics and Sociology, BS

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 (http://catalog.northeastern.edu/undergraduate/university-academics/university-wide-requirements/).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (http://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 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 |  |  |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |
| SOCL 3300 | Social Theory | 4 |
| Sociology Electives |  |  |
| Complete one course from each course range: |  |  |
| Introductory Elective |  | 4 |
| SOCL 1101 to SOCL 1999 |  |  |
| Intermediate Elective |  | 4 |
| SOCL 2000 to SOCL 3999 |  |  |
| Advanced Elective |  | 4 |
| SOCL 4000 to SOCL 4999 |  |  |
| Capstone Requirement |  |  |
| SOCL 4600 | Senior Seminar | 4 |

## Integrative Requirement

| Code <br> Complete one of the following: | Title | Hours |
| :--- | :--- | ---: |
| 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 | Computers and Society |  |

## Mathematics and Sociology Combined Major Credit Requirement

Complete 68 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ANTH 1101 |  | 4 MATH 1342 |  | 4 Vacation |  | Vacation |  |
| ENGW 1111 |  | 4 SOCL 2320 |  | 4 |  |  |  |
| MATH 1341 |  | 4 SOCL 3300 |  | 4 |  |  |  |
| MATH 1365 |  | 4 Elective |  | 4 |  |  |  |
|  |  | 16 |  | 16 |  | 0 | 0 |
| Year 2 |  |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| ANTH 2305 |  | 4 MATH 2341 |  | 4 Vacation |  | Vacation |  |
| MATH 2321 |  | 4 MATH elective |  | 4 |  |  |  |
| SOCL 2321 |  | 4 SOCL elective |  | 4 |  |  |  |
| Elective |  | 4 Elective |  | 4 |  |  |  |
|  |  | 16 |  | 16 |  | 0 | 0 |
| Year 3 |  |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| MATH 2331 |  | 4 Co-op |  | Co-op |  | Vacation |  |
| MATH elective |  | 4 |  |  |  |  |  |
| SOCL elective |  | 4 |  |  |  |  |  |
| Elective |  | 4 |  |  |  |  |  |
|  |  | 16 |  | 0 |  | 0 | 0 |
| Year 4 |  |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| MATH 3081 |  | 4 Co-op |  | Co-op |  | Vacation |  |
| SOCL elective |  | 4 |  |  |  |  |  |
| Elective |  | 4 |  |  |  |  |  |
| Elective |  | 4 |  |  |  |  |  |
|  |  | 16 |  | 0 |  | 0 | 0 |

Year 5

| Fall | Hours | Spring |
| :--- | :--- | :---: |
| Elective | 4 Capstone |  |
| Elective | 4 Integrative course | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 4 |

Total Hours: 128

