## Computer Science and Communication Studies, BS

The computer science and communication studies combined major integrates practical skills and theory. Students will gain both a strong computer science foundation and a deep understanding of the major conceptual frameworks for human communication-plus how to apply this knowledge to solve problems in today's society.

## 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/).

## Computer Science Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Computer Science Overview |  |  |
| CS 1200 | First Year Seminar | 1 |
| or COMM 1000 | Communication Studies at Northeastern |  |
| CS 1210 | Professional Development for Khoury Co-op | 1 |
| or EEAM 2000 | Professional Development for Co-op |  |
| Computer Science Fundamental Courses |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1802 \end{aligned}$ | Discrete Structures and Seminar for CS 1800 | 5 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| Computer Science Required Courses |  |  |
| CS 3000 | Algorithms and Data | 4 |
| CS 3200 | Database Design | 4 |
| $\begin{aligned} & \text { CS } 3500 \\ & \text { and CS } 3501 \end{aligned}$ | Object-Oriented Design and Lab for CS 3500 | 5 |
| CS 4500 | Software Development | 4 |
| or CS 4530 | Fundamentals of Software Engineering |  |
| CS 4550 | Web Development | 4 |
| Khoury Elective |  |  |
| With adviser approval, directed study, research, project study, and appropriate graduate-level courses may also be taken as upper-division electives. |  |  |
| Complete 12 credits of CS, CY, DS, or IS classes that are not already required. Choose courses within the following ranges: |  | 12 |
| CS 2500 or higher, except CS 5010 |  |  |
| CY 2000 or higher, except CY 4930 |  |  |
| DS 2500 or higher, except DS 4900 |  |  |
| IS 2000 or high |  |  |

## Communication Studies Courses

| Code | Title |  |
| :--- | :--- | :--- |
| Communication Studies Common Requirements |  |  |
| COMM 1101 | Introduction to Communication Studies |  |
| COMM 1112 | Public Speaking |  |
| or COMM 2301 Communication Research Methods <br> Foundation Course  |  |  |



## Supporting Courses

| Code <br> Mathematics | Title |
| :--- | :--- |
| MATH 1341 | Calculus 1 for Science and Engineering |
| Computing and Social Issues |  |
| Complete one of the following: | Issues in Race, Science, and Technology |
| AFAM 2600 | The Law, Ethics, and Policy of Data and Digital Technologies |
| CY 4170 | Cyberlaw: Privacy, Ethics, and Digital Rights |
| CY 5240 | Literature and Digital Diversity |
| ENGL 2150 | History of Technology |
| HIST 2220 | Bostonography: The City through Data, Texts, Maps, and Networks |
| INSH 2102 | Knowledge in a Digital World |
| IS 1300 | Knowledge in a Digital World |
| or PHIL 1300 | Technology and Human Values |
| PHIL 1145 | The Twenty-First-Century Workplace |
| SOCL 1280 | Environment, Technology, and Society |
| SOCL 2485 | Computers and Society |
| SOCL 4528 |  |

## Writing Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| Advanced Writing in the Disciplines |  |  |
| Complete one of the following: |  | 4 |
| ENGW 3302 | Advanced Writing in the Technical Professions |  |
| ENGW 3314 | Advanced Writing in the Arts, Media, and Design |  |
| ENGW 3315 | Interdisciplinary Advanced Writing in the Disciplines |  |
| COMM 3409 | Advocacy Writing ${ }^{2}$ |  |
| 2 |  |  |
| If Advocacy Writing (COMM 3409) is selected it will also satisfy a communication studies elective requirement. One additional general elective will be then required in its place. |  |  |
| Required General Electives |  |  |
| Code | Title | Hours |
| Complete 32 credits of general electives. |  | 32 |

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Understanding Societies and Institutions
- Employing Ethical Reasoning
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Communication Studies Grade Requirement

No more than two grades below a C in communication studies courses may be used to fulfill degree requirements.

## Khoury College GPA Requirement

Minimum 2.000 GPA required in all CS, CY, DS, IS

## Communication Studies GPA Requirement

Minimum 2.000 GPA required in all COMM courses

## Program Requirement

133 total semester hours required

## Plan of Study

Sample Pattern, Four Years, Two Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours |  | Spring | Hours |  | Summer 1 | Hours |  | Summer 2 | Hours |
| COMM 1101 |  | 4 | COMM 1112 or 2301 |  |  | $\begin{aligned} & \text { CS } 3500 \\ & \text { and CS } 3501 \end{aligned}$ |  | 5 | Elective | 4 |
| CS 1200 |  | 1 | $\text { CS } 2510$ <br> and CS 2511 |  | 5 | MATH 1341 |  | 4 | Elective | 4 |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1802 \end{aligned}$ |  | 5 | CS 3200 |  | 4 |  |  |  |  |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ |  | 5 | Elective |  | 4 |  |  |  |  |  |
| ENGW 1111 |  | 4 |  |  |  |  |  |  |  |  |
|  |  | 19 |  |  | 17 |  |  | 9 |  | 8 |

Year 2

| Fall | Hours | Spring | Hours | Summer 1 | Hours |  | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 1210 |  | 1 Co-op |  | 0 Co-op |  |  | Elective | 4 |
| CS 3000 |  | 4 |  |  |  |  | Elective | 4 |
| Communication studies foundation course |  | 4 |  |  |  |  |  |  |
| Khoury elective |  | 4 |  |  |  |  |  |  |
| Elective |  | 4 |  |  |  |  |  |  |
|  |  | 17 |  | 0 |  | 0 |  | 8 |

Year 3

| Fall | Hours |  | Spring | Hours |  | Summer 1 | Hours |  | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Communication studies cluster course |  |  | Co-op |  | 0 | Co-op |  |  | ENGW 3302 or 3315 | 4 |
| Communication studies writing-intensive course |  | 4 |  |  |  |  |  |  | Elective | 4 |
| Khoury elective |  | 4 |  |  |  |  |  |  |  |  |
| Elective |  | 4 |  |  |  |  |  |  |  |  |
|  |  | 16 |  |  | 0 |  |  | 0 |  | 8 |
| Year 4 |  |  |  |  |  |  |  |  |  |  |
| Fall | Hours |  | Spring | Hours |  |  |  |  |  |  |
| Communication studies writing-intensive course |  |  | CS 4500 |  | 4 |  |  |  |  |  |
| Communication studies elective |  |  | CS 4550 |  | 4 |  |  |  |  |  |
| Computing and social issues |  |  | Communication studies elective |  | 4 |  |  |  |  |  |
| Khoury elective |  |  | Communication studies elective |  | 4 |  |  |  |  |  |
|  |  | 16 |  |  | 16 |  |  |  |  |  |

Total Hours: 134

