

Computer Science and Speech-Language Pathology and Audiology, BS (Boston)

The Bachelor of Science in Computer Science and Speech-Language Pathology and Audiology curriculum is designed to facilitate critical thinking, information literacy, and oral and written communication skills. In addition to courses in the basic communication sciences, courses in education, allied health, computer literacy, ethics, multicultural/diversity issues, and psychology are required. Students have an opportunity to focus on the fundamentals of program design, software development, computer organization, systems and networks, theories of computation, principles of languages, and advanced algorithms and data.

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/>).

Computer Science Requirements

| Code | Title | Hours |
|--|--|-------|
| Computer Science Overview | | |
| Must be taken in alignment with your home college: | | |
| CS 1200 or SLPA 1000 | First Year Seminar College: An Introduction | 1 |
| CS 1210 or SLPA 2000 | Professional Development for Khoury Co-op Introduction to Co-op | 1 |
| Computer Science Foundations | | |
| All students can take a self-assessment to attempt to place out of CS 2000 and CS 2001. Students who place out of CS 2000 and CS 2001 will instead substitute 4-5 semester hours of CS, CY, or DS coursework at the 3000 level or higher not otherwise required in the degree. | | |
| CS 1800 and CS 1802 | Discrete Structures and Seminar for CS 1800 | 5 |
| CS 2000 and CS 2001 | Introduction to Program Design and Implementation and Lab for CS 2000 | 5 |
| CS 2100 and CS 2101 | Program Design and Implementation 1 and Lab for CS 2100 | 5 |
| Computer Science Required Courses | | |
| CS 2484 | Principles of Human-Computer Interaction | 4 |
| CS 3000 | Algorithms and Data | 4 |
| CS 3100 and CS 3101 | Program Design and Implementation 2 and Lab for CS 3100 | 5 |
| CS 3200 or CS 4100 | Introduction to Databases Artificial Intelligence | 4 |
| CS 4530 or CS 4535 | Fundamentals of Software Engineering Professional Practicum Capstone | 4 |
| Khoury Approved Electives | | |
| With advisor approval, directed study, research, project study, and appropriate graduate-level courses may also be taken as upper-division electives. | | |
| Complete 4 semester hours from within the following options: | | 4 |
| CS 2500 or higher, except CS 5010 | | |
| CY 2000 or higher, except CY 4930 | | |

DS 2500 or higher, except DS 4900

MKTG 4606 Digital, Analytics, Technology, and Automation Research Practicum

Speech-Language Pathology and Audiology Requirements

A grade of C or higher is required in the following:

| Code | Title | Hours |
|-----------|--|-------|
| SLPA 1101 | Bridging Minds: Introduction to Speech, Language, and Hearing Sciences | 4 |
| SLPA 1102 | Language Development | 4 |
| SLPA 1103 | Anatomy and Physiology of Speech and Hearing Mechanism | 4 |
| SLPA 1200 | Phonetics | 4 |
| SLPA 1203 | Introduction to Audiology | 4 |
| SLPA 1205 | Speech and Hearing Science | 4 |
| SLPA 4500 | Language Disorders across the Life Span | 4 |
| SLPA 4651 | Speech Disorders across the Life Span | 4 |
| SLPA 5107 | Clinical Procedures | 4 |
| SLPA 6219 | Aural Rehabilitation | 3 |

Math and Statistics Courses

A grade of C or higher is required in the following:

| Code | Title | Hours |
|-----------|--|-------|
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| PHTH 2210 | Foundations of Biostatistics | 4 |

Supporting Science Courses

A grade of C or higher is required in the following:

| Code | Title | Hours |
|----------------------------|--|-------|
| BIOL 2217 and BIOL 2218 | Integrated Anatomy and Physiology 1 and Lab for BIOL 2217 | 5 |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 | 5 |

Ethics Requirement

| Code | Title | Hours |
|-----------|-----------------------------|-------|
| PHIL 1145 | Technology and Human Values | 4 |

Integrative Requirement

| Code | Title | Hours |
|---------|-----------------------------|-------|
| CS 4120 | Natural Language Processing | 4 |

Writing Requirements

| Code | Title | Hours |
|--|--|-------|
| College Writing | | |
| ENGW 1111 or ENGW 1102 | First-Year Writing First-Year Writing for Multilingual Writers | 4 |
| Advanced Writing in the Disciplines | | |
| ENGW 3302 or ENGW 3306 or ENGW 3315 | Advanced Writing in the Technical Professions Advanced Writing in the Health Professions Interdisciplinary Advanced Writing in the Disciplines | 4 |

Required General Electives

| Code | Title | Hours |
|--|-------|-------|
| Complete 16 semester hours of general electives. | | 16 |

Khoury College GPA Requirement

Minimum cumulative 2.000 GPA required in all CS, CY, DS, and IS courses

NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- 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.

Students are responsible for using the general electives in this program to complete NUpath requirements not satisfied by required courses in this program.

Program Requirement

130 total semester hours required

Plan of Study

Sample Plans of Study

FOUR YEARS, ONE CO-OP IN SPRING/SUMMER FIRST HALF

| Year 1 | | | | | | | |
|----------------------------|-------|------------------------------|-------|-------------|-------|------------|-------|
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| CS 1200 or SLPA 1000 | | 1 BIOL 2217 and BIOL 2218 | | 5 PHIL 1145 | | 4 Vacation | |
| CS 1800 and CS 1802 | | 5 CS 2100 and CS 2101 | | 5 | | | |
| CS 2000 and CS 2001 | | 5 SLPA 1101 | | 4 | | | |
| ENGW 1111 or 1102 | | 4 SLPA 1205 | | 4 | | | |
| Elective | | 4 | | | | | |
| | 19 | | 18 | | | 4 | 0 |
| Year 2 | | | | | | | |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| CS 1210 or SLPA 2000 | | 1 Co-op | | 0 Co-op | | 0 Vacation | |
| CS 3100 and CS 3101 | | 5 | | | | | |
| MATH 1341 | | 4 | | | | | |
| SLPA 1103 | | 4 | | | | | |
| SLPA 1203 | | 4 | | | | | |
| | 18 | | 0 | | | 0 | 0 |
| Year 3 | | | | | | | |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| CS 2484 | | 4 ENGW 3302, 3306, or 3315 | | 4 Elective | | 4 Vacation | |
| CS 3000 and CS 3001 | | 4 SLPA 1200 | | 4 Elective | | 4 | |
| PHTH 2210 | | 4 SLPA 1102 | | 4 | | | |
| PHYS 1145 and PHYS 1146 | | 5 CS 3200 or 4100 | | 4 | | | |
| | 17 | | 16 | | | 8 | 0 |
| Year 4 | | | | | | | |
| Fall | Hours | Spring | Hours | | | | |
| SLPA 4500 | | 4 CS 4530 or 4535 | | 4 | | | |
| SLPA 5107 | | 4 SLPA 4651 | | 4 | | | |

FOUR YEARS, ONE CO-OP IN SUMMER SECOND HALF/FALL

| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
|------------------------|-------|------------------------------|-------|-------------|-------|------------|-------|
| CS 1200 or SLPA 1000 | | 1 BIOL 2217 and BIOL 2218 | | 5 PHIL 1145 | | 4 Vacation | |
| CS 1800 and CS 1802 | | 5 CS 2100 and CS 2101 | | 5 | | | |
| CS 2000 and CS 2001 | | 5 SLPA 1101 | | 4 | | | |
| ENGW 1111 or 1102 | | 4 SLPA 1205 | | 4 | | | |
| Elective | | 4 | | | | | |
| | 19 | | 18 | | 4 | | 0 |

| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
|------------------------|-------|------------------------------|-------|------------|-------|----------|-------|
| CS 1210 or SLPA 2000 | | 1 CS 2484 | | 4 Vacation | | Co-op | 0 |
| CS 3100 and CS 3101 | | 5 CS 3000 and CS 3001 | | 4 | | | |
| MATH 1341 | | 4 PHTH 2210 | | 4 | | | |
| SLPA 1103 | | 4 PHYS 1145 and PHYS 1146 | | 5 | | | |
| SLPA 1203 | | 4 | | | | | |
| | 18 | | | 17 | | 0 | 0 |

| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
|-------|-------|----------------------------|-------|------------|-------|------------|-------|
| Co-op | | 0 ENGW 3302, 3306, or 3315 | | 4 Elective | | 4 Vacation | |
| | | SLPA 1200 | | 4 Elective | | 4 | |
| | | SLPA 1102 | | 4 | | | |
| | | CS 3200 or 4100 | | 4 | | | |
| | 0 | | 16 | | 8 | | 0 |

| Fall | Hours | Spring | Hours |
|-----------------|-------|-------------------|-------|
| SLPA 4500 | | 4 CS 4530 or 4535 | 4 |
| SLPA 5107 | | 4 SLPA 4651 | 4 |
| Khoury elective | | 4 SLPA 6219 | 3 |
| CS 4120 | | 4 Elective | 4 |
| | 16 | | 15 |

Total Hours: 131