The information science and cognitive psychology combined major provides a foundation in general psychology, psychology of language, cognition, and statistics. These are supplemented by an experimental laboratory course, seminar course, and psychology electives. Information science combines concepts and skills from computer science, behavioral and social science, and system design to create an integrated, people-centered curriculum. Students who choose this program often have a general interest in human psychology or specific interests in artificial intelligence or human-computer interaction.

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.

University-Wide Requirements
All undergraduate students are required to complete the University-Wide 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 and Information Science Courses

### Computer Science Overview
- **CS 1200** Computer Science/Information Science Overview 1
- **CS 1210** Computer Science/Information Science Overview 2: Co-op Preparation 1

### Computer Science Fundamental Courses
A grade of C– or higher is required:
- **CS 1800** Discrete Structures 5
- **CS 1801** Recitation for CS 1800
- **CS 1802** and Seminar for CS 1800
- **CS 2500** Fundamentals of Computer Science 1 5
- **CS 2501** and Lab for CS 2500
- **CS 2510** Fundamentals of Computer Science 2 5
- **CS 2511** and Lab for CS 2510

### Computer Science Required Courses
- **CS 3500** Object-Oriented Design 4
- **CS 4100** Artificial Intelligence (integrative course) 4
- **CS 4800** Algorithms and Data 4

### Information Science Required Courses
- **IS 2000** Principles of Information Science 4
- **IS 3500** Information System Design and Development 4
- **IS 4300** Human Computer Interaction (integrative course) 4
- **IS 4800** Empirical Research Methods 4

### IS 4900
Information Science Senior Project (integrative course) 5

### Psychology Courses

#### Required Courses
- **PSYC 1101** Foundations of Psychology 4
- **PSYC 2320** Statistics in Psychological Research 4
- **PSYC 3464** Psychology of Language 4
- **PSYC 3466** Cognition 4

#### Advanced Psychology
- **PSYC 3452** Sensation and Perception 4
- or **PSYC 3458** Biological Psychology

#### Laboratory in Psychology
Complete one of the following: 4
- **PSYC 4610** Laboratory in Psycholinguistics
- **PSYC 4612** Laboratory in Cognition
- **PSYC 4622** Laboratory in Sensation and Perception

#### Seminar in Psychology
Complete one of the following: 4
- **PSYC 4658** Seminar in Psycholinguistics
- **PSYC 4660** Seminar in Cognition
- **PSYC 4668** Seminar in Sensation and Perception
- **PSYC 4674** Seminar in Cognitive Neuroscience

### Psychology Electives
Note: Courses satisfying the categories above cannot be reused.
Complete two of the following: 8
- **PSYC 3402** Social Psychology
- **PSYC 3450** Learning and Motivation
- **PSYC 3451** Learning Principles and Behavior Analysis
- **PSYC 3452** Sensation and Perception
- **PSYC 3458** Biological Psychology
- **PSYC 4512** Neuropsychology
- **PSYC 4520** Language and the Brain
- **PSYC 4522** Psychology of Reading
- **PSYC 4524** Cognitive Development
- **PSYC 4526** Categorization and Reasoning
- **PSYC 4610** Laboratory in Psycholinguistics
- **PSYC 4612** Laboratory in Cognition
- **PSYC 4622** Laboratory in Sensation and Perception
- **PSYC 4652** Seminar in Ethics in Psychology
- **PSYC 4658** Seminar in Psycholinguistics
- **PSYC 4660** Seminar in Cognition
- **PSYC 4668** Seminar in Sensation and Perception
- **PSYC 4674** Seminar in Cognitive Neuroscience

With prior approval, directed study research and Honors Project courses can also be counted:
- **PSYC 4970** Junior/Senior Honors Project 1
- **PSYC 4971** Junior/Senior Honors Project 2
Major GPA Requirement
Minimum 2.000 GPA required in all CS and IS courses

Supporting Courses

Calculus
A grade of C– or higher is required:
MATH 1341 Calculus 1 for Science and Engineering 4

Computing and Social Issues
Complete one of the following: 4
- PHIL 1145 Technology and Human Values
- SOCL 1280 The 21st-Century Workplace
- SOCL 3485 Environment, Technology, and Society
- SOCL 4528 Computers and Society
- ANTH 3418 Wired/Unwired: Cybercultures and Technopolitics
- IA 5240 Cyberlaw: Privacy, Ethics, and Digital Rights
- INSH 2102 Bostonography: The City through Data, Texts, Maps, and Networks

Computer Science Writing Requirement

College Writing
ENGW 1111 First-Year Writing 4

Advanced Writing in the Disciplines
ENGW 3302 Advanced Writing in the Technical Professions 4
or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

Required General Electives
Complete eight general electives. 32

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

Program Requirement
133 total semester hours required

Plan of Study
Sample Patterns:
Four Years, Two Co-ops in Summer 2/Fall

Year 1
Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours
---|-------------|---------------|---------------|---
CS 1200 | 1 CS 2510 and CS 2511 | 5 MATH 1341 | 4 Vacation | 0

Year 2
Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours
---|-------------|---------------|---------------|---
IS 2000 | 4 IS 4300 | 4 Vacation | Vacation | 0
CS 3500 | 4 CS 4800 | 4 Co-op | | 0

Five Years, Three Co-ops in Summer 2/Fall

Year 1
Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours
---|-------------|---------------|---------------|---
CS 1200 | 1 CS 2510 and CS 2511 | 5 Vacation | 0 Vacation | 0

Year 2
Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours
---|-------------|---------------|---------------|---
IS 2000 | 4 IS 4300 | 4 Vacation | Vacation | 0
CS 3500 | 4 CS 4800 | 4 Co-op | | 0
MATH 1341 | 4 PSYC 2320 | 4 | | 0
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