

Computer Science and English, BS

The computer science and English combined major focuses on the increasingly interdisciplinary processes of creating, interpreting, and analyzing texts and programs. Students will combine communication and critical judgment, gaining the creativity and adaptability necessary to utilize technology in literary studies, and apply humanities skills to solve programming problems.

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 or ENGL 1000	First Year Seminar English at Northeastern	1
CS 1210 or EESH 2000	Professional Development for Khoury Co-op Professional Development for Co-op	1
Computer Science Fundamental Courses		
CS 1800 and CS 1802	Discrete Structures and Seminar for CS 1800	5
CS 2500 and CS 2501	Fundamentals of Computer Science 1 and Lab for CS 2500	5
CS 2510 and CS 2511	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
CS 3500 and CS 3501	Object-Oriented Design and Lab for CS 3500	5
Computing Focus		
Students are required to complete one of the following foci (two courses total):		8
<i>Focus 1: Natural Language Processing</i>		
CS 3800	Theory of Computation	
CS 4120	Natural Language Processing	
<i>Focus 2: Programming Languages</i>		
CS 3800	Theory of Computation	
CS 4400	Programming Languages	
<i>Focus 3: Analytics</i>		
DS 3000	Foundations of Data Science	
DS 4200	Information Presentation and Visualization	
Computer Science/Information Science Elective Course		
Choose one:		4
IS 2000	Principles of Information Science	
CS 4500 or CS 4530	Software Development Fundamentals of Software Engineering	

Khoury Elective Courses

With adviser approval, a directed study, project study, or appropriate graduate-level course may also be taken as an upper-division elective.

Complete 4 credits of CS, CY, DS, or IS classes that are not already required. Choose courses within the following ranges: 4

CS 2500 or higher, except CS 5010

CY 2000 or higher, except CY 4930

DS 2500 or higher, except DS 4900

IS 2000 or higher, except IS 4900

English Requirements

Code	Title	Hours
Foundational Courses		
ENGL 1000	English at Northeastern	1
ENGL 1400	Introduction to Literary Studies	4
ENGL 1160	Introduction to Rhetoric	4
or ENGL 1410	Introduction to Research on Writing	
ENGL 1700	Global Literatures 1	4
or ENGL 1701	Global Literatures 2	

English Electives

Two of the courses chosen from the lists below must be at the 3000 or 4000 level.

Code	Title	Hours
Diversity		
Complete one course from the following. You may reuse this course to fulfill an additional English requirement below.		4
ENGL 2150	Literature and Digital Diversity	
ENGL 2296	Early African-American Literature	
ENGL 2450	Postcolonial Literature	
ENGL 2455	American Women Writers	
ENGL 2470	Asian-American Literature	
ENGL 2760	Writing in Global Contexts	
ENGL 3663	The African American Novel	
ENGL 3678	Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity	
ENGL 3685	Modern and Contemporary Jewish Literature	
Literary Periods		
<i>Pre-19th Century Literature</i>		
Complete one course from the following:		4
ENGL 1600	Introduction to Shakespeare	
ENGL 2296	Early African-American Literature	
ENGL 3101	Early Literatures	
ENGL 3120	17th- and 18th-Century Literatures	
ENGL 3618	Milton	
ENGL 3678	Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity	
or JWSS 3678	Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity	
<i>19th/20th/21st Century Literature</i>		
Complete one of the following courses:		4
<i>19th Century</i>		
ENGL 2330	The American Renaissance	
ENGL 3140	19th-Century Literatures	
ENGL 3619	Emerson and Thoreau	
ENGL 3720	19th-Century Major Figure	
<i>20th/21st Century</i>		
ENGL 2301	The Graphic Novel	
ENGL 2440	The Modern Bestseller	

ENGL 2600	Irish Literary Culture (Abroad)
ENGL 3161	20th- and 21st-Century Literatures
ENGL 3685 or JWSS 3685	Modern and Contemporary Jewish Literature
ENGL 3730	20th- and 21st-Century Major Figure

Theories and Methods

Complete one of the following:	4
ENGL 1140	Grammar: The Architecture of English
ENGL 1160	Introduction to Rhetoric
ENGL 1410	Introduction to Research on Writing
ENGL 2150	Literature and Digital Diversity
ENGL 3325	Rhetoric of Law
ENGL 3381	The Practice and Theory of Teaching Writing
ENGL 3400	Opening the Archive
ENGL 3700	Narrative Medicine
LING 1150	Introduction to Language and Linguistics
LING 2350	Linguistic Analysis
LING 3450	Syntax
LING 3452	Semantics
LING 3454	History of English
LING 3456	Language and Gender
LING 3458	Topics in Linguistics

Comparative Course

Complete one of the following courses:	4
ENGL 1450	Reading and Writing in the Digital Age
ENGL 1500	British Literature to 1800
ENGL 1502	American Literature to 1865
ENGL 2150	Literature and Digital Diversity
ENGL 2420	Contemporary Poetry
ENGL 2430	Contemporary Fiction
ENGL 2455	American Women Writers
ENGL 2470	Asian-American Literature
ENGL 2510	Horror Fiction
ENGL 2520	Science Fiction
ENGL 2600	Irish Literary Culture (Abroad)
ENGL 2620	What Is Nature?
ENGL 2690	Boston in Literature
ENGL 3487	Film and Text (Abroad)
ENGL 3663	The African American Novel

Writing

Complete one of the following:	4
ENGL 2700	Creative Writing
ENGL 2710	Style and Editing
ENGL 2730	Digital Writing
ENGL 2740	Writing and Community Engagement
ENGL 2760	Writing in Global Contexts
ENGL 2770	Writing to Heal
ENGL 2850	Writing for Social Media: Theory and Practice
ENGL 3375	Writing Boston
ENGL 3376	Creative Nonfiction
ENGL 3377	Poetry Workshop
ENGL 3378	Fiction Workshop
ENGL 3380	Writing Seminar
ENGL 3382	Publishing in the 21st Century

ENGL 3384	The Writer's Marketplace	
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English Electives

Complete any two ENGL courses that have not already been used to fulfill another requirement. 8

Capstone

Code	Title	Hours
Complete one of the following courses:		
ENGL 4710	Capstone Seminar	4
or ENGL 4720	Capstone Project	4

Integrative Course Requirement

This course will not be allowed to double-count in the Theories and Methods section above.

Code	Title	Hours
ENGL 3340	Technologies of Text	4
or HIST 1357	History of Information in the United States: Media, Technology, Law	

Supporting Course

Code	Title	Hours
Complete one of the following:		
AFAM 2600	Issues in Race, Science, and Technology	4
CY 4170	The Law, Ethics, and Policy of Data and Digital Technologies	
CY 5240	Cyberlaw: Privacy, Ethics, and Digital Rights	
ENGL 2150	Literature and Digital Diversity	
HIST 2220	History of Technology	
INSH 2102	Bostonography: The City through Data, Texts, Maps, and Networks	
IS 1300	Knowledge in a Digital World	
or PHIL 1300	Knowledge in a Digital World	
PHIL 1145	Technology and Human Values	
SOCL 1280	The Twenty-First-Century Workplace	
SOCL 2485	Environment, Technology, and Society	
SOCL 4528	Computers and Society	

Computer Science Writing Requirement

Code	Title	Hours
College Writing		
ENGW 1111	First-Year Writing	4
or ENGW 1102	First-Year Writing for Multilingual Writers	

Advanced Writing in the Disciplines

Complete one course from the following: 4		
ENGW 3302	Advanced Writing in the Technical Professions	
ENGW 3309	Advanced Writing in the Humanities	
ENGW 3310	Advanced Writing in Literature	
ENGW 3315	Interdisciplinary Advanced Writing in the Disciplines	

Required General Electives

Code	Title	Hours
Complete 32 credits of general electives.		32

Khoury College GPA Requirement

Minimum 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
- Analyzing and Using Data

- Exploring Creative Expression and Innovation
- 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 Plan of Study:

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 CS 3500 and CS 3501		5 Vacation	
CS 1800 and CS 1802		5 ENGL 1160 or 1410		4 Elective		4	
CS 2500 and CS 2501		5 Elective		4			
ENGL 1400		4 English literary period 1		4			
ENGW 1111		4					
	19		17			9	0
Year 2							
Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
CS 3000		4 Strand elective 1		4 ENGW 3302, 3309, 3310, or 3315		4 Co-op	
CS 3200		4 CS 1210		1 Elective		4	
English literary period 2		4 IS 2000 (or English Category or Elective)		4			
English category or elective		4 English category or elective ENGL 3340		4			
	16		17			8	0
Year 3							
Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
Co-op		Strand elective 2		4 Elective		4 Co-op	
		English category or elective		4 Elective		4	
		English category or elective		4			
		Computing and social issues		4			
	0		16			8	0
Year 4							
Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
Co-op		CS 4500 (or English Category or Elective)		4 Elective		4	
		ENGL 4710 or 4720		4 Elective		4	
		Khoury elective		4			
		Elective		4			
	0		16			8	

Total Hours: 134