

Cybersecurity and History, BS (Boston)

The cybersecurity and history combined major offers the opportunity to gain both historical knowledge and a broad range of related analytical skills in both the humanities and computer science. Students develop their historical knowledge and skills within the contexts of the arts, humanities, social sciences, and sciences, while also focusing on the conceptual and practical computer science skills to contribute to ensuring the reliability and security of cyberspace.

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/general-education-requirements/#nupathtext>).

Cybersecurity Science Courses

Code	Title	Hours
Computer Science Overview		
CS 1200 or HIST 1000 or INPR 1000	First Year Seminar History at Northeastern First-Year Interdisciplinary Seminar	1
CS 1210 or EESH 2000	Professional Development for Khoury Co-op Professional Development for Co-op	1

Computer Science Fundamental Courses

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	Discrete Structures	4
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 2700 and CS 2701	Data Structures and Analysis and Lab for CS 2700	5
CS 3100 and CS 3101	Program Design and Implementation 2 and Lab for CS 3100	5
CS 3650	Computer Systems	4
CS 4700 or CS 4730	Network Fundamentals Distributed Systems	4

Cybersecurity Required Courses

CY 2550	Foundations of Cybersecurity	4
CY 3740	Systems Security	4
CY 4170	The Law, Ethics, and Policy of Data and Digital Technologies	4
CY 4740	Network Security	4

Cybersecurity Elective

Complete one of the following:		4
COMM 2551	Free Speech in Cyberspace	
CS 2484	Principles of Human-Computer Interaction	
CS 2800	Logic and Computation	
CS 4400	Programming Languages	
CS 4500	Software Development	

or CS 4530	Fundamentals of Software Engineering
CY 4760	Security of Wireless and Mobile Systems
CY 4770	Foundations of Cryptography
CY 5010	Cybersecurity Principles and Practices
CY 5200	Security Risk Management and Assessment
CY 5210	Information System Forensics
DS 4300	Large-Scale Information Storage and Retrieval
DS 4400	Machine Learning
EECE 2322 and EECE 2323	Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322
EECE 3324	Computer Architecture and Organization
EECE 4534 and EECE 4535	Microprocessor-Based Design and Lab for EECE 4534
LPSC 1101	Introduction to Law
LPSC 2301	Introduction to Law, Policy, and Society
LPSC 3303	Topics in Law and Public Policy
MATH 3527	Number Theory 1
MATH 4575	Introduction to Cryptography
PHIL 1145	Technology and Human Values
POLS 2390	Science, Technology, and Public Policy
POLS 3307	Public Policy and Administration
POLS 3324	Law and Society
POLS 3406	International Law
POLS 3420	U.S. National Security Policy
POLS 3423	Terrorism and Counterterrorism

History Courses

Code	Title	Hours
History Required Courses		
HIST 1200	Historical Research and Writing	1
HIST 1201	First-Year Seminar	4
HIST 2211	The World Since 1945	4
HIST 2301	The History Seminar	4
HIST 2302	Historical Writing	1
Pre-1800 History Elective		
Complete one of the following:		4
HIST 1100	Law and History	
HIST 1185	Introduction to Middle Eastern History	
HIST 1218	Pirates, Planters, and Patriots: Making the Americas, 1492–1804	
HIST 1252	Japanese Literature and Culture	
HIST 1272	Europe in the Middle Ages, 500–1500	
HIST 1389	History of Espionage 1: Antiquity to World War II	
HIST 2330	Colonial and Revolutionary America	
HIST 2370	Renaissance to Enlightenment	
HIST 2375	The Tudors, the Stuarts, and the Birth of Modern Britain	
HIST 2390	Africa and the World in Early Times	
HIST 3334	Assassinations in World History	
History Outside the United States and Europe		
Complete one of the following:		4
HIST 1150	East Asian Studies	
HIST 1187	Introduction to Latin American History	
HIST 1206	Drug Trade and Drug War: History, Security, Culture	
HIST 1246	World War II in the Pacific	
HIST 1252	Japanese Literature and Culture	

HIST 1253	History of Vietnam Wars
HIST 1294	History of the Jews in the Modern World
HIST 1500	Modern China
HIST 2025	Latin American History through Film
HIST 2311	Colonialism/Imperialism
HIST 2351	Modern Japan

History Electives

Complete two HIST courses at any level in any field: 8

Intermediate/Advanced History Course

Complete a minimum of one HIST course from the following range (excluding HIST 2211, HIST 2301, and HIST 2302): 4

HIST 2000 to HIST 2999

Advanced History

Complete a minimum of one HIST course from the following range (excluding HIST 4701): 4

HIST 3000 to HIST 4999

Integrative and Capstone Course Requirement

Code	Title	Hours
HIST 4701	Capstone Seminar	4
or CY 4930	Cybersecurity Capstone	

Supporting Courses

Code	Title	Hours
Research Methods		
Complete one of the following:		
ECON 2350	Statistics for Economists	
ENVR 3300	Geographic Information Systems	
ENVR 5260	Geographical Information Systems	
POLS 2400	Quantitative Techniques	
PSYC 2320	Statistics in Psychological Research	

Mathematics 4

MATH 1341 Calculus 1 for Science and Engineering

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

This requirement is satisfied by HIST 2302 taken in conjunction with HIST 2301.

Required General Electives

Code	Title	Hours
Complete 20 semester hours of general electives.		20

Computer Science and History Credit Requirements

Complete 108 semester hours in the major.

NUpath Requirements Satisfied

- Analyzing and Using Data
- Conducting Formal and Quantitative Reasoning
- Demonstrating Thought and Action in a Capstone
- Employing Ethical Reasoning
- Engaging Differences and Diversity
- Engaging with the Natural and Designed World

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- Understanding Societies and Institutions
- Writing Across Audiences and Genres

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

Program Requirement

128 total semester hours required