

# Cybersecurity and Business Administration, BS

The cybersecurity and business administration combined major delivers a technical and security-focused degree with a strong grounding in business. Students will complete most of the requirements of a business major, including macroeconomics and microeconomics, while also focusing on the conceptual and practical computer science skills that will enable them to contribute to ensuring the reliability and security of cyberspace.

## Program Requirements

- Concentrations and course offerings may vary by campus and/or by program modality. Please consult with your advisor or admissions coach for the course availability each term at your campus or within your program modality.
- Certain options within the program may be *required* at certain campuses or for certain program modalities. Please consult with your advisor or admissions coach for requirements at your campus or for your program modality.

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/>).

## Cybersecurity Major Requirements

Code	Title	Hours
<b>Computer Science Overview</b>		
Must be taken in alignment with your home college:		
CS 1200 or BUSN 1102	First Year Seminar Personal Skill Development for Business	1
CS 1210 or BUSN 1103	Professional Development for Khoury Co-op Professional Development for Business Co-op	1
<b>Computer Science Fundamental Courses</b>		
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
<b>Computer Science Required Courses</b>		
CS 3000	Algorithms and Data	4
CS 3500 and CS 3501	Object-Oriented Design and Lab for CS 3500	5
CS 3650	Computer Systems	4
CS 4700 or CS 4730	Network Fundamentals Distributed Systems	4
<b>Cybersecurity Required Courses</b>		
CY 2550	Foundations of Cybersecurity	4
CY 3740	Systems Security	4
CY 4170 or CY 5240	The Law, Ethics, and Policy of Data and Digital Technologies Cyberlaw: Privacy, Ethics, and Digital Rights	4
CY 4740	Network Security	4

## Cybersecurity Electives

If courses require prerequisites, those should be taken using general electives.

Complete one course from the following:

4-5

COMM 2551	Free Speech in Cyberspace
CRIM 2340	Corporate Security: Securing the Private Sector
CRIM 3030	Global Criminology
CRIM 4040	Crime Prevention
CS 2800	Logic and Computation
CS 4400	Programming Languages
CS 4500	Software Development
or CS 4530	Fundamentals of Software Engineering
CS 4710	Mobile and Wireless Systems
CS 6710	Wireless Network
CY 4760	Security of Wireless and Mobile Systems
CY 5200	Security Risk Management and Assessment
CY 5210	Information System Forensics
DS 4300	Large-Scale Information Storage and Retrieval
DS 4400	Machine Learning and Data Mining 1
EECE 2310 and EECE 2311	Introduction to Digital Design and Computer Architecture and Lab for EECE 2310
EECE 3324	Computer Architecture and Organization
EECE 4534 and EECE 4535	Microprocessor-Based Design and Lab for EECE 4534
IS 4300	Human Computer Interaction
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

## Business Requirements

Code	Title	Hours
<b>Accounting</b>		
ACCT 1201	Financial Accounting and Reporting	4
ACCT 2301	Profit Analysis for Managers and Advisors	4
<b>Finance</b>		
FINA 2201	Financial Management	4
<b>Organizational Behavior</b>		
ORGB 3201	Organizational Behavior	4
<b>Marketing</b>		
MKTG 2201	Introduction to Marketing	4
<b>Statistics</b>		
MGSC 2301	Business Statistics	4
<b>Strategy</b>		
STRT 4501	Strategy in Action	4

## Business Concentration

Complete a four-course business concentration from the following list. (p. )

- Accounting (<https://catalog.northeastern.edu/undergraduate/business/concentrations/accounting/>)
- Accounting and Advisory Services (<https://catalog.northeastern.edu/undergraduate/business/concentrations/accounting-advisory-services/>)
- Brand Management (<https://catalog.northeastern.edu/undergraduate/business/concentrations/brand-management/>)
- Corporate Innovation (<https://catalog.northeastern.edu/undergraduate/business/concentrations/corporate-innovation/>)
- Entrepreneurial Startups (<https://catalog.northeastern.edu/undergraduate/business/concentrations/entrepreneurial-startups/>)
- Family Business (<https://catalog.northeastern.edu/undergraduate/business/concentrations/family-business/>)
- Finance (<https://catalog.northeastern.edu/undergraduate/business/concentrations/finance/>)
- Fintech (<https://catalog.northeastern.edu/undergraduate/business/concentrations/fintech/>)
- Healthcare Management and Consulting (<https://catalog.northeastern.edu/undergraduate/business/concentrations/healthcare-management-consulting/>)
- International Business (<https://catalog.northeastern.edu/undergraduate/business/concentrations/international-business/>) (available only as a second concentration)
- Management (<https://catalog.northeastern.edu/undergraduate/business/concentrations/management/>)
- Marketing (<https://catalog.northeastern.edu/undergraduate/business/concentrations/marketing/>)
- Marketing Analytics (<https://catalog.northeastern.edu/undergraduate/business/concentrations/marketing-analytics/>)
- Social Innovation and Entrepreneurship (<https://catalog.northeastern.edu/undergraduate/business/concentrations/social-innovation-entrepreneurship/>)
- Supply Chain Management (<https://catalog.northeastern.edu/undergraduate/business/concentrations/supply-chain-management/>)

### Business Cooperative Education

Complete one cooperative education experience.

### Integrative Requirement

Code	Title	Hours
MISM 2301	Introduction to Information Systems and Digital Technologies	4

### Supporting Courses

Code	Title	Hours
<b>Mathematics Courses</b>		
Complete one of the following:		4
MATH 1341	Calculus 1 for Science and Engineering	
MATH 1231	Calculus for Business and Economics	
<b>Economics</b>		
Complete one of the following:		4
ECON 1115	Principles of Macroeconomics	
ECON 1116	Principles of Microeconomics	

### Writing Requirements

Code	Title	Hours
<b>College Writing</b>		
ENGW 1111 or ENGW 1102	First-Year Writing First-Year Writing for Multilingual Writers	4
<b>Advanced Writing in the Disciplines</b>		
Complete one of the following courses:		4
ENGW 3302 or ENGW 3304 or ENGW 3315	Advanced Writing in the Technical Professions Advanced Writing in the Business Administration Professions Interdisciplinary Advanced Writing in the Disciplines	

### 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.

**Business GPA Requirement**

Minimum 2.000 GPA required in all business courses.

**NUpath Requirements Satisfied**

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Understanding Societies and Institutions
- 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 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
ACCT 1201		4 CS 2510 and CS 2511		5 CS 3500 and CS 3501		5 Elective 2	4
CS 1200 or BUSN 1102		1 CY 2550		4 Elective 1		4 Elective 3	4
CS 1800 and CS 1802		5 ECON 1115 or 1116		4			
CS 2500 and CS 2501		5 MATH 1341 or 1231		4			
ENGW 1111		4					
		<b>19</b>		<b>17</b>		<b>9</b>	<b>8</b>

**Year 2**

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
ACCT 2301		4 CS 1210 or BUSN 1103		1 MKTG 2201		4 Co-op	
CS 3000		4 CS 4700 or 4730		4 Business concentration 1		4	
CS 3650		4 CY 3740		4			
MGSC 2301		4 FINA 2201		4			
		Elective 4		4			
		<b>16</b>		<b>17</b>		<b>8</b>	<b>0</b>

**Year 3**

Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
Co-op		CY 4170 or 5240		4 MISM 2301		4 Co-op	
		CY 4740		4 ORGB 3201		4	
		Business concentration 2		4			
		Business concentration 3		4			
		<b>0</b>		<b>16</b>		<b>8</b>	<b>0</b>

Year 4			
Fall	Hours	Spring	Hours
Co-op		ENGW 3302	4
		STRT 4501	4
		Business concentration 4	4
		Cybersecurity elective	4
	<b>0</b>		<b>16</b>

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**Total Hours: 134**