

# Computer Science and Politics, Philosophy, and Economics, BS

Politics, philosophy, and economics bring together three important frameworks from the humanistic social sciences for understanding the world around us. Computer science involves the application of theoretical concepts in the context of software development to the solution of problems that arise in almost every human endeavor, drawing on concepts and methods from mathematics, logic, science, and engineering. This interdisciplinary degree thus provides multiple perspectives and a set of skills that are indispensable in our increasingly interconnected world and essential in addressing the kinds of complex global problems future leaders need to tackle.

## 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 Courses

Code	Title	Hours
<b>Computer Science Overview</b>		
Must be taken in alignment with your home college:		
CS 1200 or PHIL 1000	First Year Seminar Philosophy at Northeastern	1
CS 1210 or EESH 2000	Professional Development for Khoury Co-op Professional Development for 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 3200	Database Design	4
CS 3500 and CS 3501	Object-Oriented Design and Lab for CS 3500	5
CS 4500 or CS 4530	Software Development Fundamentals of Software Engineering	4
<b>Khoury Elective</b>		
With advisor approval, directed study, research, project study, and appropriate graduate-level courses may also be taken for upper-division electives.		
Complete 4 semester hours of upper-division CS, CY, DS, or IS classes that are not already required. Choose courses from 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		

## Politics, Philosophy, and Economics Courses

Complete at least four courses in each of the following subject areas: ECON, PHIL, and POLS.

Code	Title	Hours
<b>Foundation Course</b>		
PHIL 1160	Introduction to Economic Justice	4
<b>Core Courses</b>		
<i>Philosophy</i>		
PHIL 2303 or PHIL 3822	Social and Political Philosophy Philosophy of Race and Racism	4
PHIL 3435 or PHIL 2325	Moral Philosophy Ancient Philosophy and Political Thought	4
<i>Political Science</i>		
POLS 1150 or POLS 1155	American Government Comparative Politics	4
POLS 1160	International Relations	4
POLS 3405	International Political Economy	4
<i>Economics</i>		
ECON 1115 or ECON 1116	Principles of Macroeconomics Principles of Microeconomics	4
ECON 2315 or ECON 2316	Macroeconomic Theory Microeconomic Theory	4
<i>Methods Course</i>		
PHIL 3000	Interdisciplinary Methods for Politics, Philosophy, and Economics	4
<b>Capstone</b>		
Complete one of the following:		4
ECON 4692	Senior Economics Seminar	
PHIL 4550	Philosophy of Economics	
PHIL 5001	Global Justice	
PHIL 5002	Ethics and Public Policy	
POLS 4701	Political Science Senior Capstone	
POLS 4703	Senior Thesis	
<b>PPE Elective</b>		
Complete one course from the following ranges:		4
ECON 1200 to ECON 1999		
ECON 3000 to ECON 4689		
ECON 4900 to ECON 4999		
ECON 5200 to ECON 5999		
PHIL 2000 to PHIL 5999		
POLS 2000 to POLS 5999		

### Integrative Course Requirements

Code	Title	Hours
IS 4300	Human Computer Interaction	4
PHIL 1115	Introduction to Logic	4
POLS 2390	Science, Technology, and Public Policy	4

### Supporting Courses

Code	Title	Hours
<b>Statistics and Mathematics</b>		
ECON 2350 or POLS 2400 or MATH 2280	Statistics for Economists Quantitative Techniques Statistics and Software	4
MATH 1231 or MATH 1341	Calculus for Business and Economics Calculus 1 for Science and Engineering	4

## English 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:		4
ENGW 3302	Advanced Writing in the Technical Professions	
ENGW 3309	Advanced Writing in the Humanities	
ENGW 3315	Interdisciplinary Advanced Writing in the Disciplines	

## Required General Electives

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

## 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
- Writing-Intensive in the Major
- Understanding Societies and Institutions
- Employing Ethical Reasoning
- Writing in the First Year
- Advanced Writing in the Disciplines
- Demonstrating Thought and Action in a Capstone

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

## Program Requirement

129 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	Hours
CS 1200 or PHIL 1000		1 CS 2510 and CS 2511		5 CS 3000		4 MATH 1231 or 1341		4
CS 1800 and CS 1802		5 ECON 1115 or 1116		4 Elective		4 Elective		4
CS 2500 and CS 2501		5 PHIL 1115		4				
ENGW 1111		4 POLS 1160		4				
PHIL 1160		4						
	<b>19</b>		<b>17</b>			<b>8</b>		<b>8</b>
Year 2								
Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours	Hours
CS 3500 and CS 3501		5 CS 1210 or EESH 2000		1 ECON 2315 or 2316		4 Co-op		0
PHIL 3435 or 2325		4 CS 3200		4 Elective		4		
POLS 1150 or 1155		4 ECON 2350, POLS 2400, or MATH 2280		4				
POLS 3405		4 PHIL 2303 or 3822		4				

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		Elective		4				
	<b>17</b>			<b>17</b>		<b>8</b>		<b>0</b>
<b>Year 3</b>								
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>		<b>Hours</b>	<b>Summer 1</b>		<b>Hours</b>	<b>Summer 2</b>
Co-op	0	IS 4300		4	ENGW 3302, 3309, or 3315		4	Co-op
		PHIL 3000		4				
		POLS 2390		4				
		Elective		4				
	<b>0</b>			<b>16</b>		<b>4</b>		<b>0</b>
<b>Year 4</b>								
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>		<b>Hours</b>				
Co-op	0	CS 4530		4				
		Capstone		4				
		Khoury elective		4				
		PPE elective		4				
	<b>0</b>			<b>16</b>				

Total Hours: 130

**Four Years, Two Co-ops in Spring/Summer 1**

<b>Year 1</b>								
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>		<b>Hours</b>	<b>Summer 1</b>		<b>Hours</b>	<b>Summer 2</b>
CS 1200 or PHIL 1000	1	CS 2510 and CS 2511		5	CS 3500 and CS 3501		5	MATH 1231 or 1341
CS 1800 and CS 1802	5	ECON 1115 or 1116		4	Elective		4	Elective
CS 2500 and CS 2501	5	PHIL 1115		4				
ENGW 1111	4	POLS 1160		4				
PHIL 1160	4							
	<b>19</b>			<b>17</b>			<b>9</b>	<b>8</b>
<b>Year 2</b>								
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>		<b>Hours</b>	<b>Summer 1</b>		<b>Hours</b>	<b>Summer 2</b>
CS 1210 or EESH 2000	1	Co-op		0	Co-op		0	ECON 2315 or 2316
CS 3000	4							Elective
PHIL 3435 or 2325	4							
POLS 1150 or 1155	4							
POLS 3405	4							
	<b>17</b>			<b>0</b>			<b>0</b>	<b>8</b>
<b>Year 3</b>								
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>		<b>Hours</b>	<b>Summer 1</b>		<b>Hours</b>	<b>Summer 2</b>
CS 3200	4	Co-op		0	Co-op		0	ENGW 3302, 3309, or 3315
ECON 2350, POLS 2400, or MATH 2280	4							
PHIL 2303 or 3822	4							
Elective	4							
	<b>16</b>			<b>0</b>			<b>0</b>	<b>4</b>
<b>Year 4</b>								
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>		<b>Hours</b>				
CS 4500 or 4530	4	IS 4300		4				
Elective	4	Capstone		4				
PHIL 3000	4	Khoury elective		4				

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POLS 2390	4 PPE elective	4
	<b>16</b>	<b>16</b>

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**Total Hours: 130**