

# Computer Science and Politics, Philosophy, and Economics, BS (Boston)

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>		
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 with 4-5 semester hours of CS, CY, or DS coursework at the 3000 level or higher not otherwise required in the degree.		
CS 1800 and CS 1802	Discrete Structures and Seminar for CS 1800	5
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
<b>Computer Science Required Courses</b>		
CS 3000	Algorithms and Data	4
CS 3100 and CS 3101	Program Design and Implementation 2 and Lab for CS 3100	5
CS 3200	Introduction to Databases	4
CS 4530 or CS 4535	Fundamentals of Software Engineering Professional Practicum Capstone	4
<b>Khoury Approved Electives</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 from within the following options:		4
CS 2500 or higher, except CS 5010		
CY 2000 or higher, except CY 4930		
DS 2500 or higher, except DS 4900		
MKTG 4606	Digital, Analytics, Technology, and Automation Research Practicum	

## 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	Social and Political Philosophy	4
or PHIL 3822	Philosophy of Race and Racism	
PHIL 3435	Moral Philosophy	4
or PHIL 2325	Ancient Philosophy and Political Thought	
<i>Political Science</i>		
POLS 1150	American Government	4
or POLS 1155	Comparative Politics	
POLS 1160	International Relations	4
POLS 3405	International Political Economy	4
<i>Economics</i>		
ECON 1115	Principles of Macroeconomics	4
or ECON 1116	Principles of Microeconomics	
ECON 2315	Macroeconomic Theory	4
or ECON 2316	Microeconomic Theory	
<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
CS 2484	Principles of 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	Statistics for Economists	4
or POLS 2400	Quantitative Techniques	
or MATH 2280	Statistics and Software	

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MATH 1231	Calculus for Business and Economics	4
or MATH 1341	Calculus 1 for Science and Engineering	

## English Requirements

Code	Title	Hours
<b>College Writing</b>		
ENGW 1111	First-Year Writing	4
or ENGW 1102	First-Year Writing for Multilingual Writers	
<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 cumulative 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 Plans of Study

#### FOUR YEARS, TWO CO-OPS IN SUMMER SECOND HALF/FALL

Year 1							
Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
CS 1200 or PHIL 1000		1 CS 2100 and CS 2101		5 CS 3000		4 MATH 1231 or 1341	4
CS 1800 and CS 1802	5	ECON 1115 or 1116	4	General Elective	4	General Elective	4
CS 2000 and CS 2001	5	PHIL 1115	4				
ENGW 1111	4	POLS 1160	4				
PHIL 1160	4						
19		17		8		8	
Year 2							
Fall	Hours	Spring	Hours	Summer 1	Hours	Summer 2	Hours
CS 3100 and CS 3101	5	CS 1210 or EESH 2000	1	ECON 2315 or 2316	4	Co-op	0
PHIL 3435 or 2325	4	CS 3200	4	General Elective	4		

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POLS 1150 or 1155	4	ECON 2350, POLS 2400, or MATH 2280	4				
POLS 3405	4	PHIL 2303 or 3822	4				
		Elective	4				
	17		17		8		0
<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>	<b>Hours</b>
Co-op	0	CS 2484	4	ENGW 3302, 3309, or 3315	4	Co-op	0
		PHIL 3000	4				
		POLS 2390	4				
		General Elective	4				
	0		16		4		0
<b>Year 4</b>							
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>				
Co-op	0	CS 4530 or 4535	4				
		Khoury Elective	4				
		PPE Capstone	4				
		PPE Elective	4				
	0		16				

**Total Hours: 130**

#### FOUR YEARS, TWO CO-OPS IN SPRING/SUMMER FIRST HALF

<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>	<b>Hours</b>
CS 1200 or PHIL 1000	1	CS 2100 and CS 2101	5	CS 3100 and CS 3101	5	MATH 1231 or 1341	4
CS 1800 and CS 1802	5	ECON 1115 or 1116	4	General Elective	4	General Elective	4
CS 2000 and CS 2001	5	PHIL 1115	4				
ENGW 1111	4	POLS 1160	4				
PHIL 1160	4						
	19		17		9		8
<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>	<b>Hours</b>
CS 1210 or EESH 2000	1	Co-op	0	Co-op	0	ECON 2315 or 2316	4
CS 3000	4					General Elective	4
PHIL 3435 or 2325	4						
POLS 1150 or 1155	4						
POLS 3405	4						
	17		0		0		8
<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>	<b>Hours</b>
CS 3200	4	Co-op	0	Co-op	0	ENGW 3302, 3309, or 3315	4
ECON 2350, POLS 2400, or MATH 2280	4						
PHIL 2303 or 3822	4						
General Elective	4						
	16		0		0		4
<b>Year 4</b>							
<b>Fall</b>	<b>Hours</b>	<b>Spring</b>	<b>Hours</b>				
CS 4530 or 4535	4	CS 2484	4				
General Elective	4	Khoury Elective	4				

PHIL 3000	4 PPE Capstone	4
POLS 2390	4 PPE Elective	4
16		16

Total Hours: 130