# Economics, MS (Boston)

The Master of Science in Economics program focuses on applied economic policy analysis, with broad specialization areas. The program is large enough to support a full slate of core and area courses each year, yet small enough to maintain a sense of community among the students. The program is especially appropriate for those who wish to work in or return to positions in government, teaching, finance, or industry while providing a rigorous basis for those who want to continue their studies to the doctoral level.

The Master of Science in Economics offers the opportunity for master's students to apply for paid work positions through Northeastern University's world-famous co-op program. Qualified and approved master's students can participate in co-op as practicing economists for up to six months as part of their academic program (note that a minimum GPA of 3.000 is required in order to apply). This paid work experience enhances the degree and its emphasis on application. Students have an opportunity to learn how to apply their knowledge, solve problems, and make a difference in the world before they graduate. Our graduates either find full-time work in their area of specialty or go on to earn additional graduate degrees. All of our graduates have found jobs after completing our program. For more information, please visit the Master of Science in Economics (https:// cssh.northeastern.edu/economics/program/ms-graduate-program/) website.

## **Program Requirements**

Complete all courses and requirements listed below unless otherwise indicated.

### **Core Requirements**

core nequirements		
Code	Title	Hours
Quantitative		
ECON 5105	Math and Statistics for Economists	4
or ECON 6105	Advanced Mathematics and Statistics for Economists	
ECON 5140	Applied Econometrics	4
or ECON 6140	Advanced Applied Econometrics	
Theory		
ECON 5110	Microeconomic Theory	4
or ECON 6110	Advanced Microeconomic Theory	
ECON 5120	Macroeconomic Theory	4
or ECON 6120	Advanced Macroeconomic Theory	
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The Department of Economics recommends that undergraduate PlusOne students enrolled in graduate courses notify the instructor that they are in the PlusOne program at the start of the semester.

### **Concentration or Electives Option**

A concentration is not required. Students may complete the electives option in lieu of the Data Science for Economics concentration.

- Data Science for Economics (p. 1)
- Electives Option (p. 2)

### **Optional Co-op Experience**

Code	Title	Hours
Four-month co-ops require registration at 1 semester hour for one term. Longer co-ops require registration at 1 semester hour per term for two consecutive terms.		1-2
ECON 6964 and INSH 6864	Co-op Work Experience and Experiential Integration	

### **Program Credit/GPA Requirements**

32 semester hours required (33–34 with optional co-op) Minimum 3.000 GPA required

CONCENTRATION IN DATA SCIENCE FOR ECONOMICS			
Code	Title	Hours	
Required			
DS 5110	Essentials of Data Science	4	
or CS 5200	Database Management Systems		
or DAMG 6210	Data Management and Database Design		

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or IE 6700	Data Management for Analytics	
Complete one of the following (it is requested that students seek program approval prior to registering for CS 5800):		
CS 5800	Algorithms	
OR 6205	Deterministic Operations Research	
Complete 4 semester hours from the following:		4
CS 7140	Advanced Machine Learning	
DS 5230	Unsupervised Machine Learning and Data Mining	
or CS 6220	Data Mining Techniques	
ECON 5210	Machine Learning in Economics	
or DS 5220	Supervised Machine Learning and Learning Theory	
or CS 6140	Machine Learning	
ECON 5220	Computational Finance and Financial Econometrics	
IE 6600	Computation and Visualization for Analytics	
IE 7275	Data Mining in Engineering	
Economics Elective		
Complete 4 semester hours from the following range:		4

ECON 5200 to ECON 7772

#### **ELECTIVES OPTION**

With prior approval from the graduate program director, the following courses may substitute for electives: Thesis (ECON 7990) or Internship In Economics (ECON 8550). Additionally, a student may select a maximum of 8 graduate semester hours offered by other departments.

Code	Title	Hours
Complete 16 semester hours from the following range (excluding any class taken to fulfill core requirements above):		16
ECON 5200 to ECON 7772		