

MATHEMATICAL ECONOMICS (COURSE 14-2)

Economics Department (<https://catalog.mit.edu/schools/humanities-arts-social-sciences/economics/#undergraduatetext>)

Bachelor of Science in Mathematical Economics

General Institute Requirements (GIRs)

The General Institute Requirements include a Communication Requirement that is integrated into both the HASS Requirement and the requirements of each major; see details below.

Summary of Subject Requirements	Subjects
Science Requirement	6
Humanities, Arts, and Social Sciences (HASS) Requirement [between one and three subjects can be from the Departmental Program]; at least two of these subjects must be designated as communication-intensive (CI-H) to fulfill the Communication Requirement.	8
Restricted Electives in Science and Technology (REST) Requirement [can be satisfied by 14.30, and 18.03 or 18.06 in the Departmental Program]	2
Laboratory Requirement (12 units) [is satisfied by 14.32 in the Departmental Program]	1
Total GIR Subjects Required for SB Degree	17

Physical Education Requirement

Swimming requirement, plus four physical education courses for eight points.

Departmental Program

Choose at least two subjects in the major that are designated as communication-intensive (CI-M) to fulfill the Communication Requirement.

Required Subjects	Units
14.01 Principles of Microeconomics	12
14.02 Principles of Macroeconomics	12
14.30 Introduction to Statistical Methods in Economics	12
14.32 Econometric Data Science	12
18.100A Real Analysis ¹	12
18.03 Differential Equations	12
or 18.06 Linear Algebra	
<i>Select one of the following:</i>	12
14.12 Economic Applications of Game Theory ²	
14.04 Intermediate Microeconomic Theory	
14.15[[]] Networks	

14.19 Market Design	
<i>Select one of the following:</i>	12
14.05 Intermediate Macroeconomics (CI-M)	
14.18 Mathematical Economic Modeling (CI-M)	
14.33 Research and Communication in Economics: Topics, Methods, and Implementation (CI-M)	
14.35 Why Markets Fail (CI-M)	
<i>Select one of the following:</i>	12
18.104 Seminar in Analysis (CI-M)	
18.504 Seminar in Logic (CI-M)	
18.784 Seminar in Number Theory (CI-M)	

Restricted Electives

Select three additional subjects in mathematics and economics, with at least one subject in each discipline.

Units in Major	144
Unrestricted Electives	84-96
Units in Major That Also Satisfy the GIRs	(48-60)
Total Units Beyond the GIRs Required for SB Degree	180

The units for any subject that counts as one of the 17 GIR subjects cannot also be counted as units required beyond the GIRs.

¹ Alternative versions of this subject, 18.100B, 18.100P, and 18.100Q, also satisfy this requirement.

² Subject has prerequisites that are outside of the program.

Restricted Electives in Economics

14.03 Microeconomic Theory and Public Policy	12
14.06 Advanced Macroeconomics	12
14.11 Topics in Economics	12
14.12 Economic Applications of Game Theory	12
14.13 Psychology and Economics	12
14.15[[]] Networks	12
14.16 Strategy and Information	12
14.18 Mathematical Economic Modeling	12
14.19 Market Design	12
14.20 Industrial Organization: Competitive Strategy and Public Policy	12
14.26[[]] Organizational Economics	12
14.27 Economics of Digitization	12
14.36 Advanced Econometrics	12
14.38 Inference on Causal and Structural Parameters Using ML and AI	12

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14.39	Large-Scale Decision-Making and Inference	12
14.41	Public Finance and Public Policy	12
14.42	Environmental Policy and Economics	12
14.43[]	Economics of Energy, Innovation, and Sustainability	12
14.44[]	Energy Economics and Policy	12
14.45[]	Climate and Energy in the Global Economy	12
14.54	International Trade	12
14.64	Labor Economics and Public Policy	12
14.70[]	Medieval Economic History in Comparative Perspective	12
14.73	The Challenge of World Poverty	12
14.75	Political Economy and Economic Development	12
14.76	Firms, Markets, Trade and Growth	12
14.78[]	Shaping the Future of Technology: From Early Agriculture to Artificial Intelligence	12