ECONOMICS (COURSE 14)

General Economics and Theory

14.00 Undergraduate Internship in Economics
Prereq: Permission of instructor
U (IAP, Summer)
Units arranged [P/D/F]
Can be repeated for credit.

For Course 14 students participating in off-campus internship experiences in economics. Before registering for this subject, students must have an employment offer from a company or organization and must identify a Course 14 advisor. Upon completion of the internship, student must submit a letter from the employer describing the work accomplished, along with a substantive final report from the student approved by the MIT advisor. Subject to departmental approval. Consult departmental undergraduate office.
Consult D. Donaldson

14.000 Graduate Internship in Economics
Prereq: Permission of instructor
G (IAP, Summer)
Units arranged [P/D/F]
Can be repeated for credit.

For Course 14 students participating in off-campus internship experiences in economics. Before registering for this subject, students must have an employment offer from a company or organization and must identify a Course 14 advisor. Upon completion of the internship, student must submit a letter from the employer describing the work accomplished, along with a substantive final report from the student approved by the MIT advisor. Subject to departmental approval. Consult departmental graduate office.
Consult I. Andrews

14.001 Design of Policy Summer Internship
Prereq: Permission of department
G (Fall, Spring, Summer)
0-1-0 units

Provides students in the DEDP Master's program the opportunity to synthesize their coursework and professional experience in policy, economics, and data analysis. In the context of a summer internship, students apply the knowledge gained in the program towards a project with a host organization, typically in the development or public policy sectors. Students will be supported in finding a suitable opportunity or research project. All internship placements are subject to approval by the program director. Each student must write a capstone project report. Restricted to DEDP MASc students.
S. Ellison

14.003 Microeconomic Theory and Public Policy
Subject meets with 14.03
Prereq: 14.01 or permission of instructor
G (Fall, Spring)
4-0-8 units

Students master and apply economic theory, causal inference, and contemporary evidence to analyze policy challenges. These include the effect of minimum wages on employment, the value of healthcare, the power and limitations of free markets, the benefits and costs of international trade, the causes and remedies of externalities, the consequences of adverse selection in insurance markets, the impacts of labor market discrimination, and the application of machine learning to supplement to decision-making. Class attendance and participation are mandatory. Students taking graduate version complete additional assignments.
Consult N. Agarwal, D. Autor, T. Salz

14.009 Economics and Society's Toughest Problems
Prereq: None
Acad Year 2025-2026: Not offered
Acad Year 2026-2027: U (Fall)
1-0-2 units

Should we trade more or less with China? Why are some countries poor, and some countries rich? Why are the 1% getting richer? Should the US have a universal basic income? Why is our society becoming so polarized? What can we do to mitigate climate change? Will robots take all the jobs? Why does racism persist and how can we fight it? What will the world economy look like after the COVID-19 recession? Economics shows you how to think about some of the toughest problems facing society — and how to use data to get answers. Features lectures by MIT's economics faculty, showing how their cutting-edge research can help answer these questions. In lieu of problem sets, quizzes, or other written assignments, students produce materials of their choice (podcasts, TikToks, longer videos) with the view to make a potential audience excited about economics. Subject can count toward the 6-unit discovery-focused credit limit for first-year students.
E. Duflo

14.01 Principles of Microeconomics
Prereq: None
U (Fall, Spring)
3-0-9 units. HASS-S

Introduces microeconomic concepts and analysis, supply and demand analysis, theories of the firm and individual behavior, competition and monopoly, and welfare economics. Applications to problems of current economic policy.
Consult N. Agarwal, D. Donaldson, J. Gruber

14.02 Principles of Macroeconomics
Prereq: None
U (Fall, Spring)
3-0-9 units. HASS-S

Provides an overview of macroeconomic issues including the determination of national income, economic growth, unemployment, inflation, interest rates, and exchange rates. Introduces basic macroeconomic models and illustrates key principles through applications to the experience of the US and other economies. Explores a range of current policy debates, such as the economic effects of monetary and fiscal policy, the causes of and policy responses to financial crises, the burden of the national debt, and the government policies that affect long-term growth in living standards. Lectures are recorded and available for students with scheduling conflicts.
R. Caballero, J. Poterba

14.03 Microeconomic Theory and Public Policy
Subject meets with 14.003
Prereq: 14.01 or permission of instructor
U (Fall, Spring)
4-0-8 units. HASS-S

Students master and apply economic theory, causal inference, and contemporary evidence to analyze policy challenges. These include the effect of minimum wages on employment, the value of healthcare, the power and limitations of free markets, the benefits and costs of international trade, the causes and remedies of externalities, the consequences of adverse selection in insurance markets, the impacts of labor market discrimination, and the application of machine learning to supplement to decision-making. Class attendance and participation are mandatory. Students taking graduate version complete additional assignments.
Consult N. Agarwal, D. Autor, T. Salz

14.04 Intermediate Microeconomic Theory
Prereq: Calculus II (GIR) and 14.01
U (Fall)
4-0-8 units. HASS-S

Features economic science, the utilization of theory and evidence. Presents mechanism design, general equilibrium theory, the welfare theorems, their failure with resolutions, and the role of the public sector. Examines applications from developing and developed economies. Special attention given to technological change, including recent innovations such as blockchain, distributed ledgers, and smart contracts. Discusses the optimal allocation of risk, contract theory, improvements in financial and information infrastructure, and optimized exchange and contracting platforms.
R. Townsend

14.05 Intermediate Macroeconomics
Prereq: 14.01 and (14.02 or permission of instructor)
U (Fall)
4-0-8 units. HASS-S

Uses the tools of macroeconomics to investigate various macroeconomic issues in depth. Topics range from economic growth and inequality in the long run to economic stability and financial crises in the short run. Surveys many economic models used today. Requires a substantial research paper on the economics of long-run economic growth.
C. Wolf

14.06 Advanced Macroeconomics
Prereq: 14.01 and 14.02
U (Fall)
Not offered regularly; consult department
4-0-8 units. HASS-S

Blends a thorough study of the theoretical foundations of modern macroeconomics with a review of useful mathematical tools, such as dynamic programming, optimal control, and dynamic systems. Develops comfort with formal macroeconomic reasoning and deepens understanding of key macroeconomic phenomena, such as business cycles. Goes on to study more specific topics, such as unemployment, financial crises, and the role of fiscal and monetary policy. Special attention to reviewing relevant facts and disentangling them from their popular interpretations. Uses insights and tools from game theory. Includes applications to recent and historical events.
Consult Department Headquarters

14.08 Technical Topics in Economics
Prereq: 14.01
U (Fall, Spring)
4-0-8 units
Can be repeated for credit.

Considers technical issues of current research interest in economics.
Consult Department Headquarters

14.09 Reading Seminar in Economics
Prereq: 14.04 and 14.06
U (Fall, IAP, Spring, Summer)
Units arranged [P/D/F]
Can be repeated for credit.

Reading and discussion of particular topics in economics. Open to undergraduate students by arrangement with individual faculty members. Consult Department Headquarters.
D. Donaldson

14.10 Reading Seminar in Economics
Prereq: 14.04 and 14.06
U (Fall, IAP, Spring, Summer)
Units arranged
Can be repeated for credit.

Reading and discussion of particular topics in economics. Open to undergraduate students by arrangement with individual faculty members. Consult Department Headquarters.
D. Donaldson

14.11 Topics in Economics
Prereq: 14.01
U (Fall)
Not offered regularly; consult department
4-0-8 units. HASS-S
Can be repeated for credit.

Considers issues of current research interest in economics.
Consult Department Headquarters

14.12 Economic Applications of Game Theory
Prereq: 14.01 and (6.041B, 14.04, 14.30, 18.05, or permission of instructor)
U (Fall)
4-0-8 units. HASS-S

Analysis of strategic behavior in multi-person economic settings. Introduction to solution concepts, such as rationalizability, backwards induction, Nash equilibrium, subgame-perfect equilibrium, and sequential equilibrium. Strong emphasis on dynamic games, such as repeated games. Introduction to Bayesian games, focusing on Bayesian Nash Equilibrium, Perfect Bayesian Equilibrium, and signaling games. Applications drawn from microeconomics: imperfect competition, implicit cartels, bargaining, and auctions.
I. Ball

14.121 Microeconomic Theory I
Prereq: 14.04 and permission of instructor
G (Fall; first half of term)
3-0-3 units

Covers consumer and producer theory, markets and competition, general equilibrium and the welfare theorems; featuring applications, uncertainty, identification and restrictions models place on data. Enrollment limited; preference to PhD students.
P. Pathak

14.122 Microeconomic Theory II
Prereq: 14.121 and permission of instructor
G (Fall; second half of term)
3-0-3 units

Introduction to game theory. Topics include normal form and extensive form games, and games with incomplete information. Enrollment limited.
G. Ellison

14.123 Microeconomic Theory III
Prereq: 14.121, 14.122, and permission of instructor
G (Spring; first half of term)
3-0-3 units

Models of individual decision-making under certainty and uncertainty. Additional topics in game theory. Enrollment limited.
D. Fudenberg

14.124 Microeconomic Theory IV
Prereq: 14.123 or permission of instructor
G (Spring; second half of term)
3-0-3 units

Introduction to statistical decision theory, incentive contracting (moral hazard and adverse selection), mechanism design and incomplete contracting. Enrollment limited.
A. Wolitzky

14.125 Market Design
Prereq: 14.124
G (Spring)
4-0-8 units

Theory and practice of market design, building on ideas from microeconomics, game theory and mechanism design. Prominent case studies include auctions, labor markets, school choice, prediction markets, financial markets, and organ exchange clearinghouses.
N. Agarwal, P. Pathak

14.126 Game Theory
Prereq: 14.122
G (Spring)
3-0-9 units

Investigates equilibrium and non-equilibrium solution concepts and their foundations as the result of learning or evolution. Studies the equilibria of supermodular games, global games, repeated games, signaling games, and models of bargaining, cheap talk, and reputation.
D. Fudenberg, A. Wolitzky, M. Yildiz

14.127 Advanced Game Theory
Prereq: None
Acad Year 2025-2026: Not offered
Acad Year 2026-2027: G (Fall)
4-0-8 units

For students who plan to do game theory research. Covers the following topics: epistemic foundations of game theory, higher order beliefs, the role and status of common prior assumptions, social networks and social learning, repeated and stochastic games, non-equilibrium learning, stochastic stability and evolutionary dynamics, game theory experiments, and behavioral game theory.
D. Fudenberg, M. Yildiz

14.129 Blockchain and the Design of Financial Systems
Prereq: None
G (Spring)
4-0-8 units

Synthesizes the computer science underlying ‹em›cryptocurrency, blockchain, tokenization,‹/em› and other digital and algorithmic innovations with the economic tools of ‹em›contract theory, mechanism design, general equilibrium theory, and monetary theory‹/em›. Goal is to understand the impact of distributed ledgers, smart contracts, and encryption on legacy systems and to explore possibilities for new financial designs and for regulation.
R. Townsend

14.13 Psychology and Economics
Subject meets with 14.131
Prereq: 14.01
U (Spring)
4-0-8 units. HASS-S

Introduces the theoretical and empirical literature of behavioral economics. Examines important and systematic departures from the standard models in economics by incorporating insights from psychology and other social sciences. Covers theory and evidence on time, risk, and social preferences; beliefs and learning; emotions; limited attention; and frames, defaults, and nudges. Studies applications to many different areas, such as credit card debt, procrastination, retirement savings, addiction, portfolio choice, poverty, labor supply, happiness, and government policy. Students participate in surveys and experiments in class, review evidence from lab experiments, examine how the results can be integrated into models, and test models using field and lab data. Students taking graduate version complete additional assignments.
F. Schilbach

14.130 Reading Economic Theory
Prereq: 14.121 and 14.451
Acad Year 2025-2026: Not offered
Acad Year 2026-2027: G (Fall)
2-0-10 units
Can be repeated for credit.

Class will read and discuss current research in economic theory with a focus on game theory, decision theory, and behavioral economics. Students will be expected to make one presentation and to read and post comments on every paper by the day before the paper is presented. Permission of the instructor required, and auditors are not allowed.
D. Fudenberg

14.131 Psychology and Economics
Subject meets with 14.13
Prereq: 14.01
G (Spring)
4-0-8 units

Introduces the theoretical and empirical literature of behavioral economics. Examines important and systematic departures from the standard models in economics by incorporating insights from psychology and other social sciences. Covers theory and evidence on time, risk, and social preferences; beliefs and learning; emotions; limited attention; and frames, defaults, and nudges. Studies applications to many different areas, such as credit card debt, procrastination, retirement savings, addiction, portfolio choice, poverty, labor supply, happiness, and government policy. Students participate in surveys and experiments in class, review evidence from lab experiments, examine how the results can be integrated into models, and test models using field and lab data.# Students taking graduate version complete additional assignments.
F. Schilbach

14.137[J] Psychology and Economics
Same subject as 9.822[J]
Prereq: None
G (Spring)
4-0-8 units

Examines "psychology appreciation" for economics students. Aims to enhance knowledge and intuition about psychological processes in areas relevant to economics. Increases understanding of psychology as an experimental discipline, with its own distinct rules and style of argument. Topics include self-knowledge, cognitive dissonance, self-deception, emotions, social norms, self-control, learning, mental accounting, memory, individual and group behavior, and some personality and psycho-analytic models. Within each of these topics, we showcase effective and central experiments and discuss their role in the development of psychological theory. Term paper required.
D. Prelec

14.147 Topics in Game Theory
Prereq: 14.126
G (Fall)
4-0-8 units

Advanced subject on topics of current research interest. First half emphasizes information in dynamic games. Second half focuses on learning and some of the associated probability theory, including proofs of some of the theorems used in the first half.
A. Wolitzky, D. Fudenberg

14.15[J] Networks
Same subject as 6.3260J
Subject meets with 14.150
Prereq: 6.3700 or 14.30
U (Fall)
4-0-8 units. HASS-S

Highlights common principles that permeate the functioning of diverse technological, economic and social networks. Utilizes three sets of tools for analyzing networks -- random graph models, optimization, and game theory -- to study informational and learning cascades; economic and financial networks; social influence networks; formation of social groups; communication networks and the Internet; consensus and gossiping; spread and control of epidemics; control and use of energy networks; and biological networks. Students taking graduate version complete additional assignments.
A. Wolitzky

14.150 Networks
Subject meets with 6.3260J, 14.15[J]
Prereq: 6.3700 or 14.300
G (Fall)
4-0-8 units

Highlights common principles that permeate the functioning of diverse technological, economic and social networks. Utilizes three sets of tools for analyzing networks -- random graph models, optimization, and game theory -- to study informational and learning cascades; economic and financial networks; social influence networks; formation of social groups; communication networks and the Internet; consensus and gossiping; spread and control of epidemics; control and use of energy networks; and biological networks. Students taking graduate version complete additional assignments.
A. Wolitzky

14.16 Strategy and Information
Subject meets with 14.161
Prereq: 14.01 or permission of instructor
U (Spring)
4-0-8 units. HASS-S

Covers modern applications of game theory where incomplete information plays an important role. Applications include bargaining, auctions, global games, market design, information design, and network economics. Students taking graduate version complete additional assignments.
I. Ball, M. Yildiz

14.160 Behavioral Economics
Prereq: 14.122
G (Spring)
4-0-8 units

Covers recent theory and empirical evidence in behavioral economics. Topics include deviations from the neoclassical model in terms of (i) preferences (present bias, reference dependence, social preferences), (ii) beliefs (overconfidence, projection bias), and (iii) decision-making (cognition, attention, framing, persuasion), as well as (iv) market reactions to such deviations. Applications will cover a large range of fields, including labor and public economics, industrial organization, health economics, finance, and development economics.
A. Banerjee, F. Schilbach

14.161 Strategy and Information
Subject meets with 14.16
Prereq: 14.01 or permission of instructor
G (Spring)
4-0-8 units

Covers modern applications of game theory where incomplete information plays an important role. Applications include bargaining, auctions, global games, market design, information design, and network economics. Students taking graduate version complete additional assignments.
I. Ball, M. Yildiz

14.163 Algorithms and Behavioral Science
Prereq: (14.122 and 14.381) or permission of instructor
G (Spring)
4-0-8 units

Examines algorithms and their interaction with human cognition. Provides an overview of supervised learning as it relates to econometrics and economic applications. Discusses using algorithms to better understand people, using algorithms to improve human judgment, and using understanding of humans to better design algorithms. Prepares economics PhD students to conduct research in the field.
S. Mullainathan, A. Rambachan

14.164 Foundations of Behavioral Economics (New)
Prereq: None. *Coreq: 14.123*
G (Fall)
4-0-8 units

Presents the core concepts of behavioral economics, including: key models and theories, how to run a mechanism experiment in the field and online, and how to effectively read the psychology literature and bring key insights into economics. Models and theories covered include, but are not limited to: non-standard preferences (such as social preferences; reference-dependence; temptation, self-control, and quasi-hyperbolic preferences), non-standard beliefs (selective attention, selective memory, and misspecification; failures of contingent reasoning), and non-standard decision-making (anchoring, complexity aversion, imitation heuristics).
D. Fudenberg, F. Schilbach

14.18 Mathematical Economic Modeling
Prereq: 14.04, 14.12, 14.15[J], or 14.19
U (Spring)
4-0-8 units. HASS-S

Guides students through the process of developing and analyzing formal economic models and effectively communicating their results. Topics include decision theory, game theory, voting, and matching. Instruction and practice in oral and written communication provided. Prior coursework in microeconomic theory and/or proof-based mathematics required. Limited to 18 students.
M. Yildiz

14.19 Market Design
Prereq: 14.01
U (Fall)
4-0-8 units. HASS-S

Covers the design and operation of organized markets, building on ideas from microeconomic and game theory. Topics may include mechanism design, auctions, matching markets, and other resource allocation problems.
P. Pathak

14.191 Independent Research Paper
Prereq: Permission of instructor
G (Fall, IAP, Spring, Summer)
0-12-0 units
Can be repeated for credit.

Under guidance from a faculty member approved by Graduate Registration Officer, student writes a substantial, probably publishable research paper. Must be completed by the end of a student's second year to satisfy the departmental minor requirement.
Staff

14.192 Advanced Research and Communication
Prereq: 14.124, 14.382, and 14.454
G (Fall, IAP, Spring)
2-4-6 units
Can be repeated for credit.

Guides second-year Economics PhD students through the process of conducting and communicating economic research. Students choose topics for research projects, develop research strategies, carry out analyses, and write and present research papers. Limited to second year Economics PhD students.
Consult Department Headquarters

14.193 Advanced Seminar in Economics
Prereq: 14.121 and 14.451
G (Fall, Spring, Summer; first half of term)
Units arranged
Can be repeated for credit.

Reading and discussion of current topics in economics. Open to advanced graduate students by arrangement with individual members of the staff.
Consult Department headquarters

14.194 Seminar: Topics in Economics (New)
Prereq: None
G (Fall, IAP, Spring, Summer)
Units arranged [P/D/F]
Can be repeated for credit.

Reading and discussion of special topics in economics. Topics may vary from year to year. Open to DEDP students.
Consult Department Headquarters

14.195 Reading Seminar in Economics
Prereq: 14.121
G (Fall, Spring, Summer)
Units arranged [P/D/F]
Can be repeated for credit.

Reading and discussion of current topics in economics. Open to advanced graduate students by arrangement with individual members of the staff.
Staff

14.196 Topics in Economics (New)
Prereq: 14.121
G (Fall, Spring)
Units arranged
Can be repeated for credit.

Reading and discussion of special topics in economics. Open to advanced graduate students.
Consult Department Headquarters

14.197 Independent Research
Prereq: None
G (Fall, IAP, Spring, Summer)
Units arranged [P/D/F]
Can be repeated for credit.

Under guidance from a faculty member approved by Graduate Registration Officer, student conducts independent research.
Staff

14.198, 14.199 Teaching Introductory Economics
Prereq: None
G (Fall, Spring)
2-0-2 units
Can be repeated for credit.

Required of teaching assistants in introductory economics (14.01 and 14.02), under guidance from the faculty member in charge of the subject.
14.198, J. Gruber, N. Agarwal, D. Donaldson. 14.199, J. Poterba, R. Caballero

14.281 Contract Economics
Prereq: 14.124 or permission of instructor
G (Fall)
4-0-8 units

Covers theoretical research on contracts in static as well as dynamic settings. Topics include agency theory, mechanism design, incomplete contracting, information design and costly information acquisition.
I. Ball, S. Morris

Industrial Organization

14.20 Industrial Organization: Competitive Strategy and Public Policy
Subject meets with 14.200
Prereq: 14.01
U (Spring)
4-0-8 units. HASS-S

Analyzes the current debate over the rise of monopolies, the strategic behavior and performance of firms in imperfectly competitive markets, and the role of competition policy.
Topics include monopoly power; pricing, product choice, and innovation decisions by firms in oligopoly markets; static and dynamic measurement of market performance; and incentives in organizations. Requires regular participation in class discussion and teamwork in a competitive strategy game. Students taking graduate version complete additional assignments.
N. Rose

14.200 Industrial Organization: Competitive Strategy and Public Policy
Subject meets with 14.20
Prereq: 14.01
G (Spring)
4-0-8 units

Analyzes the current debate over the rise of monopolies, the strategic behavior and performance of firms in imperfectly competitive markets, and the role of competition policy. Topics include monopoly power; pricing, product choice, and innovation decisions by firms in oligopoly markets; static and dynamic measurement of market performance; and incentives in organizations. Requires regular participation in class discussion and teamwork in a competitive strategy game. Students taking graduate version complete additional assignments.
N. Rose

14.27 Economics of Digitization
Subject meets with 14.270
Prereq: 14.01 and (6.3700 or 14.30)
Acad Year 2025-2026: Not offered
Acad Year 2026-2027: U (Spring)
4-0-8 units. HASS-S

Uses theoretical economic models and empirical evidence to help understand the past and likely future impacts that digitization has had on legacy markets and institutions. These models help frame class discussions on e-commerce, search, online advertising, traditional and social media, privacy, platform design, and distance learning, among other topics. Students complete a project, and those taking the graduate version have additional assignments.
S. Ellison

14.270 Economics of Digitization
Subject meets with 14.27
Prereq: 14.01 and (6.3700 or 14.30)
Acad Year 2025-2026: Not offered
Acad Year 2026-2027: G (Spring)
4-0-8 units

Uses theoretical economic models and empirical evidence to help understand the past and likely future impacts that digitization has had on legacy markets and institutions. These models help frame class discussions on e-commerce, search, online advertising, traditional and social media, privacy, platform design, and distance learning, among other topics. Students complete a project, and those taking the graduate version have additional assignments.
S. Ellison

14.271 Industrial Organization I
Prereq: None. *Coreq: 14.122 and 14.381*
G (Fall)
5-0-7 units

Covers theoretical and empirical work dealing with the market structure, firm behavior, and consumer outcomes in imperfectly competitive markets. Topics include: monopoly, price discrimination, product differentiation, consumer search, dynamic oligopoly, entry, platforms, auctions, bounded rationality, and online markets. Theoretical and empirical work are integrated in each area.
G. Ellison

14.272 Industrial Organization II
Prereq: 14.271
G (Spring)
5-0-7 units

Continuation of 14.271. Focuses on government interventions in monopoly and oligopoly markets, and addresses both competition and regulatory policy. Topics include horizontal merger policy and demand estimation, vertical integration and vertical restraints, and the theory and practice of economic regulation. Applications include the political economy of regulation; the performance of economic regulation; deregulation in sectors including electric power, transportation, and financial services; and pharmaceutical and environmental regulation in imperfectly competitive product markets.
N. Rose, M. Whinston

14.273 Advanced Topics in Industrial Organization
Prereq: 14.271
G (Spring)
5-0-7 units

Empirical analysis of theoretically derived models of market behavior. Varied topics include demand estimation, differentiated products, production functions, analysis of market power, entry and exit, vertical relationships, auctions, matching markets, network externalities, dynamic oligopoly, moral hazard and adverse selection. Discussion will focus on methodological issues, including identification, estimation, counter-factual analysis and simulation techniques.
N. Agarwal, T. Salz

Organizational Economics

14.26[J] Organizational Economics
Same subject as 15.039[J]
Subject meets with 14.260
Prereq: 14.01
U (Spring)
4-0-8 units. HASS-S

Provides a rigorous, but not overly technical introduction to the economic theory of organization together with a varying set of applications. Addresses incentives, control, relationships, decision processes, and organizational culture and performance. Introduces selected fundamentals of game theory. Students taking graduate version complete additional assignments.
R. Gibbons

14.260 Organizational Economics
Subject meets with 14.26[J], 15.039[J]
Prereq: None
G (Spring)
4-0-8 units

Provides a rigorous, but not overly technical introduction to the economic theory of organization together with a varying set of applications. Addresses incentives, control, relationships, decision processes, and organizational culture and performance. Introduces selected fundamentals of game theory. Students taking graduate version complete additional assignments.
R. Gibbons

14.282 Introduction to Organizational Economics
Prereq: 14.124
G (Fall)
5-0-7 units

Begins with survey of contract theory for organizational economists, then introduces the main areas of the field, including the boundary of the firm; decision-making, employment, structures and processes in organizations; and organizations other than firms.
C. Angelucci, R. Gibbons, N. Kala

14.283 Advanced Topics in Organizational Economics I
Prereq: 14.282
G (Spring; first half of term)
2-0-4 units

Builds on the work done in 14.282 to develop more in-depth analysis of topics in the field.
R. Gibbons, C. Angelucci

14.284 Advanced Topics in Organizational Economics II
Prereq: 14.282
G (Spring; second half of term)
2-0-4 units

Builds on the work done in 14.282 to develop more in-depth analysis of topics in the field.
C. Angelucci, R. Gibbons

Statistics and Econometrics

14.30 Introduction to Statistical Methods in Economics
Subject meets with 14.300
Prereq: Calculus II (GIR)
U (Fall)
4-0-8 units. REST

Self-contained introduction to probability and statistics with applications in economics and the social sciences. Covers elements of probability theory, statistical estimation and inference, regression analysis, causal inference, and program evaluation. Couples methods with applications and with assignments involving data analysis. Uses basic calculus and matrix algebra. Students taking graduate version complete additional assignments. May not count toward HASS requirement.
A. Abadie

14.300 Introduction to Statistical Methods in Economics
Subject meets with 14.30
Prereq: Calculus II (GIR)
G (Fall)
4-0-8 units

Self-contained introduction to probability and statistics with applications in economics and the social sciences. Covers elements of probability theory, statistical estimation and inference, regression analysis, causal inference, and program evaluation. Couples methods with applications and with assignments involving data analysis. Uses basic calculus and matrix algebra. Students taking graduate version complete additional assignments.
A. Abadie

14.310 Data Analysis for Social Scientists
Prereq: None
G (Spring)
Not offered regularly; consult department
4-0-8 units

Introduces methods for harnessing data to answer questions of cultural, social, economic, and policy interest. Presents essential notions of probability and statistics. Covers techniques in modern data analysis: regression and econometrics, prediction, design of experiment, randomized control trials (and A/B testing), machine learning, data visualization, analysis of network data, and geographic information systems. Projects include analysis of data with a written description and interpretation of results; may involve gathering of original data or use of existing data sets. Applications drawn from real world examples and frontier research. Instruction in use of the statistical package R. Students taking graduate version complete additional assignments.
Consult E. Duflo

14.32 Econometric Data Science
Subject meets with 14.320
Prereq: 14.30, 15.069, or 18.650[J]
U (Fall, Spring)
4-4-4 units. Institute LAB

Introduces regression and other tools for causal inference and descriptive analysis in empirical economics. Topics include analysis of randomized experiments, instrumental variables methods and regression discontinuity designs, differences-in-differences estimation, and regression with time series data. Develops the skills needed to conduct — and critique — empirical studies in economics and related fields. Empirical applications are drawn from published examples and frontier research. Familiarity with statistical programming languages is helpful. Students taking graduate version complete an empirical project leading to a short paper. No listeners. Limited to 70 total for versions meeting together.
A. Mikusheva, J. Angrist

14.320 Econometric Data Science
Subject meets with 14.32
Prereq: 14.300, 15.069, or 18.650[J]
G (Fall, Spring)
4-4-4 units

Introduces regression and other tools for causal inference and descriptive analysis in empirical economics. Topics include analysis of randomized experiments, instrumental variables methods and regression discontinuity designs, differences-in-differences estimation, and regress with time series data. Develops the skills needed to conduct — and critique — empirical studies in economics and related fields. Empirical applications are drawn from published examples and frontier research. Familiarity with statistical programming languages is helpful. Students taking graduate version complete an empirical project leading to a short paper. No listeners. Limited to 70 total for versions meeting together.
A. Mikusheva, J. Angrist

14.33 Research and Communication in Economics: Topics, Methods, and Implementation
Prereq: 14.32 and (14.01 or 14.02)
U (Fall, Spring)
3-4-5 units. HASS-S

Exposes students to the process of conducting independent research in empirical economics and effectively communicating the results of the research. Emphasizes econometric analysis of an assigned economic question and culminates in each student choosing an original topic, performing appropriate analysis, and delivering oral and written project reports. Limited to 20 per section.
Staff

14.35 Why Markets Fail
Prereq: 14.04, 14.12, 14.15[J], or 14.19
Acad Year 2025-2026: Not offered
Acad Year 2026-2027: U (Fall)
4-0-8 units. HASS-S

Guides students through the process of developing and communicating economic and data analysis. Discusses topics in which markets fail to provide efficient outcomes or economic opportunity. Topics include health insurance, intergenerational mobility, discrimination, climate change, and more. Instruction and practice in oral and written communication provided. Key course activities include the writing of a term paper conducting original economic analysis and an in-class slide presentation of the work. Limited to 18.
N. Hendren

14.36 Advanced Econometrics
Subject meets with 14.387
Prereq: 14.32 or permission of instructor
Acad Year 2025-2026: Not offered
Acad Year 2026-2027: U (Fall)
4-0-8 units

Advanced treatment of the core empirical strategies used to answer causal questions in applied microeconometric research. Covers extensions and innovations relating to econometric applications of regression, machine learning, instrumental variables, differences-in-differences and event-study models, regression discontinuity designs, synthetic controls, and statistical inference. Students taking graduate version complete an additional assignment.
J. Angrist

14.38 Inference on Causal and Structural Parameters Using ML and AI
Subject meets with 14.388
Prereq: 14.32
U (Spring)
4-0-8 units

Provides an applied treatment of modern causal inference with high-dimensional data, focusing on empirical economic problems encountered in academic research and the tech industry. Formulates problems in the languages of structural equation modeling and potential outcomes. Presents state-of-the-art approaches for inference on causal and structural parameters, including de-biased machine learning, synthetic control methods, and reinforcement learning. Introduces tools from machine learning and deep learning developed for prediction purposes, and discusses how to adapt them to learn causal parameters. Emphasizes the applied and practical perspectives. Requires knowledge of mathematical statistics and regression analysis and programming experience in R or Python.
V. Chernozhukov

14.380 Statistical Method in Economics
Prereq: 14.32 or permission of instructor
G (Fall; first half of term)
3-0-3 units

Introduction to probability and statistics as background for advanced econometrics. Covers elements of probability theory, sampling theory, asymptotic approximations, hypothesis testing, and maximum-likelihood methods. Illustrations from economics and application of these concepts to economic problems. Limited to 40 PhD students.
A. Mikusheva, A. Rambachan

14.381 Estimation and Inference for Linear Causal and Structural Models
Prereq: 14.380 and 18.06
G (Fall; second half of term)
3-0-3 units

Explains basic econometric ideas and methods, illustrating with empirical applications. Causal inference is emphasized and examples of economic structural models are given. Topics include randomized trials, regression, including discontinuity designs and diffs-in-diffs, and instrumental variables, including local average treatment effects. Basic asymptotic theory for regression is covered and robust standard errors and statistical inference methods are given. Restricted to PhD students from Courses 14 and 15. Instructor approval required for all others.
I. Andrews

14.382 Econometrics
Prereq: 14.381 or permission of instructor
G (Spring; first half of term)
3-0-3 units

Covers key models as well as identification and estimation methods used in modern econometrics. Presents modern ways to set up problems and do better estimation and inference than the current empirical practice. Introduces generalized method of moments and the method of M-estimators in addition to more modern versions of these methods dealing with important issues, such as weak identification. Also discusses the bootstrap. Students gain practical experience by applying the methods to real data sets. Enrollment limited.
V. Chernozhukov

14.383 High-Dimensional Econometrics
Prereq: 14.382 or permission of instructor
G (Spring; second half of term)
3-0-3 units

Continuation of topics in 14.382, with specific focus on large dimensional models. Students gain practical experience by applying the methods to real data sets. Enrollment limited.
V. Chernozhukov

14.384 Time Series Analysis
Prereq: 14.382 or permission of instructor
G (Fall)
5-0-7 units

Studies theory and application of time series methods in econometrics, including spectral analysis, estimation with stationary and non-stationary processes, VARs, factor models, unit roots, cointegration, and Bayesian methods. Enrollment limited.
A. Mikusheva

14.385 Nonlinear Econometric Analysis
Prereq: 14.382 or permission of instructor
G (Fall)
5-0-7 units

Develops a full understanding of and ability to apply micro-econometric models and methods. Topics include extremum estimators, including minimum distance and simulated moments, identification, partial identification, sensitivity analysis, many weak instruments, nonlinear panel data, de-biased machine learning, discrete choice models, nonparametric estimation, quantile regression, and treatment effects. Methods are illustrated with economic applications. Enrollment limited.
A. Abadie, I. Andrews

14.386 New Econometric Methods
Prereq: 14.382
G (Spring)
4-0-8 units

Exposes students to the frontier of econometric research. Includes fundamental topics such as empirical processes, semiparametric estimation, nonparametric instrumental variables, inference under partial identification, large-scale inference, empirical Bayes, and machine learning methods. Other topics vary from year to year, but can include empirical likelihood, weak identification, and networks.
A. Abadie, I. Andrews, A. Mikusheva

14.387 Applied Econometrics
Subject meets with 14.36
Prereq: 14.381 or permission of instructor
Acad Year 2025-2026: Not offered
Acad Year 2026-2027: G (Fall)
4-0-8 units

Advanced treatment of the core empirical strategies used to answer causal questions in applied microeconometric research. Covers extensions and innovations relating to econometric applications of regression, machine learning, instrumental variables, differences-in-differences and event-study models, regression discontinuity designs, synthetic controls, and statistical inference. Students taking the graduate version complete an additional assignment.
J. Angrist

14.388 Inference on Causal and Structural Parameters Using ML and AI
Subject meets with 14.38
Prereq: 14.381
G (Spring)
4-0-8 units

Provides an applied treatment of modern causal inference with high-dimensional data, focusing on empirical economic problems encountered in academic research and the tech industry. Formulates problems in the languages of structural equation modeling and potential outcomes. Presents state-of-the-art approaches for inference on causal and structural parameters, including de-biased machine learning, synthetic control methods, and reinforcement learning. Introduces tools from machine learning and deep learning developed for prediction purposes, and discusses how to adapt them to learn causal parameters. Emphasizes the applied and practical perspectives. Requires knowledge of mathematical statistics and regression analysis and programming experience in R or Python.
V. Chernozhukov

14.39 Large-Scale Decision-Making and Inference
Subject meets with 14.390
Prereq: 14.32
U (Fall)
4-0-8 units. HASS-S

Covers the use of data to guide decision-making, with a focus on data-rich and high-dimensional environments as are now commonly encountered in both academic and industry applications. Begins with an introduction to statistical decision theory, including Bayesian perspectives. Covers empirical Bayes methods, including related concepts such as false discovery rates, illustrated with economic applications. Requires knowledge of mathematical statistics and regression analysis, as well as programming experience in R or Python. Students taking the graduate version submit additional assignments.
I. Andrews

14.390 Large-Scale Decision-Making and Inference
Subject meets with 14.39
Prereq: 14.320
G (Fall)
4-0-8 units

Covers the use of data to guide decision-making, with a focus on data-rich and high-dimensional environments as are now commonly encountered in both academic and industry applications. Begins with an introduction to statistical decision theory, including Bayesian perspectives. Covers empirical Bayes methods, including related concepts such as false discovery rates, illustrated with economic applications. Requires knowledge of mathematical statistics and regression analysis, as well as programming experience in R or Python. Students taking the graduate version submit additional assignments.
I. Andrews

14.391 Workshop in Economic Research
Prereq: 14.124 and 14.454
G (Fall)
2-0-10 units
Can be repeated for credit.

Develops research ability of students through intensive discussion of dissertation research as it proceeds, individual or group research projects, and critical appraisal of current reported research. Workshops divided into various fields, depending on interest and size.
Staff

14.392 Workshop in Economic Research
Prereq: 14.124 and 14.454
G (Spring)
2-0-10 units
Can be repeated for credit.

Develops research ability of students through intensive discussion of dissertation research as it proceeds, individual or group research projects, and critical appraisal of current reported research. Workshops divided into various fields, depending on interest and size.
Staff

14.399 Seminar in Data, Economics, and Design of Policy
Prereq: Permission of instructor
G (Spring)
2-0-10 units

Group study of current topics in development policy and research. Includes student presentations and invited speakers. Restricted to DEDP MASc students.
S. Ellison

National Income and Finance

14.41 Public Finance and Public Policy
Subject meets with 14.410
Prereq: 14.01
U (Fall)
4-0-8 units. HASS-S

Explores the role of government in the economy, applying tools of basic microeconomics to answer important policy questions such as government response to global warming, school choice by K-12 students, Social Security versus private retirement savings accounts, government versus private health insurance, setting income tax rates for individuals and corporations. Students taking the graduate version complete additional assignments.
J. Gruber, N. Hendren

14.410 Public Finance and Public Policy
Subject meets with 14.41
Prereq: 14.01
G (Fall)
4-0-8 units

Explores the role of government in the economy, applying tools of basic microeconomics to answer important policy questions such as government response to global warming, school choice by K-12 students, Social Security versus private retirement savings accounts, government versus private health insurance, setting income tax rates for individuals and corporations. Students taking the graduate version complete additional assignments.
J. Gruber, N. Hendren

14.416[J] Asset Pricing
Same subject as 15.470[J]
Prereq: None
G (Fall)
4-0-8 units

See description under subject 15.470[J].
L. Schmidt, J. Parker

14.42 Environmental Policy and Economics
Subject meets with 14.420
Prereq: 14.01
U (Spring)
Not offered regularly; consult department
4-0-8 units. HASS-S

Introduces key concepts and recent advances in environmental economics, and explores their application to environmental policy questions. Topics include market efficiency and market failure, methods for valuing the benefits of environmental quality, the proper role of government in the regulation of the environment, environmental policy design, and implementation challenges. Considers international aspects of environmental policy as well, including the economics of climate change, trade and the environment, and environmental challenges in developing countries. Students taking graduate version complete additional assignments.
Consult Department Headquarters

14.420 Environmental Policy and Economics
Subject meets with 14.42
Prereq: 14.01
G (Spring)
Not offered regularly; consult department
4-0-8 units

Introduces students to key concepts and recent advances in environmental economics, and explores their application to environmental policy questions. Topics include market efficiency and market failure, methods for valuing the benefits of environmental quality, the proper role of government in the regulation of the environment, environmental policy design and implementation challenges. Also considers international aspects of environmental policy including the economics of climate change, trade and the environment and environmental challenges in developing countries. Students taking graduate version complete additional assignments.
Consult Department Headquarters

14.43[J] Economics of Energy, Innovation, and Sustainability
Same subject as 15.0201J
Prereq: 14.01 or 15.0111
U (Fall)
Not offered regularly; consult department
3-0-9 units. HASS-S
Credit cannot also be received for 15.020

See description under subject 15.0201J.
J. Li

14.44[J] Energy Economics and Policy
Same subject as 15.037[J]
Prereq: 14.01 or 15.0111
U (Spring)
4-0-8 units. HASS-S
Credit cannot also be received for 14.444[J], 15.035, 15.0351, 15.038[J]

Analyzes business and public policy issues in energy markets and in the environmental markets to which they are closely tied. Examines the economic determinants of industry structure and evolution of competition among firms in these industries. Investigates successful and unsuccessful strategies for entering new markets and competing in existing markets. Industries studied include oil, natural gas, coal, electricity, and transportation. Topics include climate change and environmental policy, the role of speculation in energy markets, the political economy of energy policies, and market power and antitrust. Two team-based simulation games, representing the world oil market and a deregulated electricity market, act to cement the concepts covered in lecture. Students taking graduate version complete additional assignments. Limited to 60.
C. Knittel

14.440[J] Advanced Corporate Finance
Same subject as 15.473[J]
Prereq: None
G (Spring)
3-0-9 units

See description under subject 15.473[J]. Primarily for doctoral students in finance, economics, and accounting.
A. Schoar, D. Thesmar, C. Palmer

14.441[J] Doctoral Corporate Finance
Same subject as 15.471[J]
Prereq: None
G (Spring)
3-0-9 units

See description under subject 15.471[J].
A. Schoar, M. Farboodi

14.442[J] Advanced Asset Pricing
Same subject as 15.472[J]
Prereq: None
G (Fall)
3-0-9 units

See description under subject 15.472[J]. Primarily for doctoral students in finance, economics, and accounting.
L. Kogan, D. Lucas, H. Zhu

14.444[J] Energy Economics and Policy
Same subject as 15.038[J]
Prereq: 14.01 or 15.0111
G (Spring)
4-0-8 units
Credit cannot also be received for 14.44[J], 15.035, 15.0351, 15.037[J]

Analyzes business and public policy issues in energy markets and in the environmental markets to which they are closely tied. Examines the economic determinants of industry structure and evolution of competition among firms in these industries. Investigates successful and unsuccessful strategies for entering new markets and competing in existing markets. Industries studied include oil, natural gas, coal, electricity, and transportation. Topics include climate change and environmental policy, the role of speculation in energy markets, the political economy of energy policies, and market power and antitrust. Two team-based simulation games, representing the world oil market and a deregulated electricity market, act to cement the concepts covered in lecture. Students taking graduate version complete additional assignments. Limited to 60.
C. Knittel

14.448[J] Current Topics in Finance
Same subject as 15.474[J]
Prereq: None
G (Spring)
3-0-9 units
Can be repeated for credit.

See description under subject 15.474[J]. Primarily for doctoral students in accounting, economics, and finance.
Consult M. Dorval

14.449[J] Current Research in Financial Economics
Same subject as 15.475[J]
Prereq: Permission of instructor
G (Fall, IAP, Spring, Summer)
3-0-3 units
Can be repeated for credit.

See description under subject 15.475[J]. Restricted to doctoral students.
Consult M. Dorval

14.45[J] Climate and Energy in the Global Economy
Same subject as 15.0161J
Prereq: 14.01 or 15.0111
U (Fall)
3-0-9 units. HASS-S
Credit cannot also be received for 14.450[J], 15.016[J]

See description under subject 15.0161J.
C. Wolfram

14.450[J] Climate and Energy in the Global Economy
Same subject as 15.016[J]
Prereq: 14.01, 15.010, 15.011, or 15.024
G (Fall)
3-0-9 units
Credit cannot also be received for 14.45[J], 15.0161[J]

See description under subject 15.016[J].
C. Wolfram

14.451 Dynamic Optimization Methods with Applications
Prereq: 14.06 and permission of instructor
G (Fall; first half of term)
3-0-3 units

Provides an introduction to dynamic optimization methods, including discrete-time dynamic programming in non-stochastic and stochastic environments, and continuous time methods including the Pontryagin maximum principle. Applications may include the Ramsey model, irreversible investment models, and consumption choices under uncertainty. Enrollment limited.
C. Wolf

14.452 Economic Growth
Prereq: 14.451 and permission of instructor
G (Fall; second half of term)
3-0-3 units

Introduces the sources and modeling of economic growth and income differences across nations. Topics include an introduction to dynamic general equilibrium theory, the neoclassical growth model, overlapping generations, determinants of technological progress, endogenous growth models, measurement of technological progress, the role of human capital in economic growth, and growth in a global economy. Enrollment limited.
D. Acemoglu

14.453 Economic Fluctuations
Prereq: 14.452 and permission of instructor
G (Spring; first half of term)
3-0-3 units

Investigation of why aggregate economic activity fluctuates, and the role of policy in affecting fluctuations. Topics include the link between monetary policy and output, the economic cost of aggregate fluctuations, the costs and benefits of price stability, and the role of central banks. Introduction to real business cycle and new Keynesian models. Enrollment limited.
I. Werning

14.454 Economic Crises
Prereq: 14.453 and permission of instructor
G (Spring; second half of term)
3-0-3 units

Provides an overview of models of the business cycle caused by financial markets' frictions and shocks. Topics include credit crunch, collateral shocks, bank runs, contagion, speculative bubbles, credit booms, leverage, safe asset shortages, capital flows and sudden stops. Enrollment limited.
R. Caballero

14.461 Advanced Macroeconomics I
Prereq: 14.122 and 14.452
G (Fall)
5-0-7 units

Advanced subject in macroeconomics that seeks to bring students to the research frontier. Topics vary from year to year, covering a wide spectrum of classical and recent research. Topics may include business cycles, optimal monetary and tax policy, monetary economics, banking, and financial constraints on investment and incomplete markets.
I. Werning, C. Wolf

14.462 Advanced Macroeconomics II
Prereq: 14.461
G (Spring)
5-0-7 units

Topics vary from year to year. Often includes coordination failures; frictions in beliefs, such as rational inattention, higher-order uncertainty, certain forms of bounded rationality, heterogeneous beliefs, and ambiguity; implications for business cycles, asset markets, and policy; financial frictions and obstacles to trade; intermediation; liquidity; safe assets; global imbalances; financial crises; and speculation.
Consult Department Headquarters

14.47[J] Global Energy: Politics, Markets, and Policy
Same subject as 11.167[J], 15.2191J, 17.399[J]
Prereq: None
U (Spring)
Not offered regularly; consult department
3-0-9 units. HASS-S
Credit cannot also be received for 11.267[J], 15.219[J]

See description under subject 15.2191J. Preference to juniors, seniors, and Energy Minors.
Staff

14.471 Public Economics I
Prereq: 14.04
G (Spring)
4-0-8 units

Theory and evidence on government taxation policy. Topics include tax incidence; optimal tax theory; the effect of taxation on labor supply and savings; taxation and corporate behavior; and tax expenditure policy.
N. Hendren, J. Poterba, I. Werning

14.472 Public Economics II
Prereq: 14.471
G (Fall)
3-0-9 units

Focuses on government expenditures and policies designed to correct market failures and/or redistribute resources. Key topics include theoretical and empirical analysis of insurance market failures, the optimal design of social insurance programs, and the design of redistributive programs.
A. Finkelstein, N. Hendren

14.475 Environmental Economics
Prereq: None
G (Spring)
4-0-8 units

Covers the economics of the environment and climate change. Topics include the economic impacts of global warming; adaptation; the development and impacts of clean technology; resource depletion and sustainability; pollution; deforestation; biodiversity; regulation and public policy; and the role of international issues including climate agreements, geopolitics, trade, and global inequality.
J. Moscona, B. Olken

International, Interregional, and Urban Economics

14.54 International Trade
Subject meets with 14.540
Prereq: 14.01
U (Fall)
4-0-8 units. HASS-S

Provides an introduction to theoretical and empirical topics in international trade. Offers a brief history of globalization. Introduces the theory of comparative advantage and discusses its implications for international specialization and wage inequality. Studies the determinants and consequences of trade policy, and analyzes the consequences of immigration and foreign direct investment. Students taking graduate version complete additional assignments.
A. Costinot

14.540 International Trade
Subject meets with 14.54
Prereq: 14.01
G (Fall)
4-0-8 units

Provides an introduction to theoretical and empirical topics in international trade. Offers a brief history of globalization. Introduces the theory of comparative advantage and discusses its implications for international specialization and wage inequality. Studies the determinants and consequences of trade policy, and analyzes the consequences of immigration and foreign direct investment. Students taking graduate version complete additional assignments.
A. Costinot

14.581 International Economics I
Prereq: 14.04
G (Fall)
5-0-7 units

Covers a variety of topics, both theoretical and empirical, in international trade, international macroeconomics, and economic geography. Focuses on general equilibrium analysis in neoclassical economies. Considers why countries and regions trade, and what goods they trade; impediments to trade, and why some countries deliberately erect policy to impede; and implications of openness for growth. Also tackles normative issues, such as whether trade openness is beneficial, whether there are winners and losers from trade and, if so, how they can possibly be identified.
D. Atkin, A. Costinot, D. Donaldson

14.582 International Economics II
Prereq: 14.06
G (Spring)
5-0-7 units

Building on topics covered in 14.581, revisits a number of core questions in international trade, international macroeconomics, and economic geography in the presence of increasing returns, imperfect competition, and other distortions. Stresses their connection to both macro and micro (firm-level) data for questions related to trade policy, inequality, industrial policy, growth, and the location of economic activities. Focuses on both theoretical models, empirical findings, and the challenging task of putting those two together.
D. Atkin, A. Costinot, D. Donaldson

Labor Economics and Industrial Relations

14.64 Labor Economics and Public Policy
Subject meets with 14.640
Prereq: 14.30 or permission of instructor
U (Spring)
4-0-8 units. HASS-S

Provides an introduction to the labor market, how it functions, and the important role it plays in people's lives. Topics include supply and demand, minimum wages, labor market effects of social insurance and welfare programs, the collective bargaining relationship, discrimination, human capital, and unemployment. Completion of or concurrent enrollment in 14.03 or 14.04, and 14.32 recommended. Students taking graduate version complete additional assignments.
J. Angrist

14.640 Labor Economics and Public Policy
Subject meets with 14.64
Prereq: 14.300 or permission of instructor
G (Spring)
4-0-8 units

Provides an introduction to the labor market, how it functions, and the important role it plays in people's lives. Topics include supply and demand, minimum wages, labor market effects of social insurance and welfare programs, the collective bargaining relationship, discrimination, human capital, and unemployment. Completion of or concurrent enrollment in 14.03 or 14.04, and 14.32 recommended. Students taking graduate version complete additional assignments.
J. Angrist

14.661 Labor Economics I
Subject meets with 14.661A
Prereq: 14.32 and (14.03 or 14.04)
G (Fall)
5-0-7 units

A systematic development of the theory of labor supply, labor demand, and human capital. Topics include wage and employment determination, turnover, search, immigration, unemployment, equalizing differences, and institutions in the labor market. Particular emphasis on the interaction between theoretical and empirical modeling. No listeners.
D. Acemoglu, J. Angrist, P. Pathak

14.661A Labor Economics I
Subject meets with 14.661
Prereq: 14.32 and (14.03 or 14.04)
G (Fall)
5-0-7 units

Covers the same material as 14.661 but in greater depth. Additional assignments required. Limited to economics PhD students who wish to declare a major field in labor economics.
D. Acemoglu, J. Angrist, P. Pathak

14.662 Labor Economics II
Subject meets with 14.662A
Prereq: 14.32 and (14.03 or 14.04)
G (Spring)
5-0-7 units

Theory and evidence on the determinants of earnings levels and inequality, intergenerational mobility, skill demands, imperfect competition, and employment structure. Particular focus on the determinants of worker and firm-level productivity; and the roles played by supply, demand, discrimination, institutions, information, technology, and trade in the evolving distribution of income.
D. Autor, N. Roussille

14.662A Labor Economics II
Subject meets with 14.662
Prereq: 14.32 and (14.03 or 14.04)
G (Spring)
5-0-7 units

Covers the same material as 14.662 but in greater depth. Additional assignments required. Limited to economics PhD students who wish to declare a major field in labor economics.
D. Autor, N. Roussille

Economic History

14.70[J] Medieval Economic History in Comparative Perspective
Same subject as 21H.134[J]
Prereq: None
Acad Year 2025-2026: U (Spring)
Acad Year 2026-2027: Not offered
3-0-9 units. HASS-S; CI-H

See description under subject 21H.134[J].
A. McCants

Economic Development

14.73 The Challenge of World Poverty
Prereq: None
U (Fall)
4-0-8 units. HASS-S; CI-H

Designed for students who are interested in the challenge posed by massive and persistent world poverty. Examines extreme poverty over time to see if it is no longer a threat, why some countries grow fast and others fall further behind, if growth or foreign aid help the poor, what we can do about corruption, if markets or NGOs should be left to deal with poverty, where to intervene, and how to deal with the disease burden and improve schools.
E. Duflo, F. Schilbach

14.74 Foundations of Development Policy
Subject meets with 14.740
Prereq: 14.01
U (Fall)
Not offered regularly; consult department
4-0-8 units. HASS-S

Explores the foundations of policy making in developing countries, with the goal of spelling out various policy options and quantifying the trade-offs between them. Topics include education, health, fertility, adoption of technological innovations, financial markets (credit, savings, and insurance), markets for land and labor, political factors, and international considerations (aid, trade, and multinational firms). Some basic familiarity with probability and/or statistics is useful for this class. Students taking graduate version complete additional assignments.
Consult Department Headquarters

14.740 Foundations of Development Policy
Subject meets with 14.74
Prereq: 14.01
G (Fall)
Not offered regularly; consult department
4-0-8 units

Explores the foundations of policy making in developing countries, with the goal of spelling out various policy options and quantifying the trade-offs between them. Topics include education, health, fertility, adoption of technological innovations, financial markets (credit, savings, and insurance), markets for land and labor, political factors, and international considerations (aid, trade, and multinational firms). Some basic familiarity with probability and/or statistics is useful for this class. Students taking graduate version complete additional assignments.
Consult Department Headquarters

14.75 Political Economy and Economic Development
Subject meets with 14.750
Prereq: 14.01, 14.03, or permission of instructor
U (Spring)
4-0-8 units. HASS-S

Explores the relationship between political institutions and economic development, covering key theoretical issues as well as recent empirical evidence. Topics include colonialism and its legacy, voting, vote buying, media, social media, corruption, and war. Discusses not just what we know on these topics, but how we know it, covering how to craft a good empirical study or field experiment and how to discriminate between reliable and unreliable statistical evidence. Some basic familiarity with probability and/or statistics is useful for this class. Students taking graduate version complete additional assignments.
B. Olken, J. Moscona

14.750 Political Economy and Economic Development
Subject meets with 14.75
Prereq: 14.01, 14.03, or permission of instructor
G (Spring)
4-0-8 units

Explores the relationship between political institutions and economic development, covering key theoretical issues as well as recent empirical evidence. Topics include colonialism and its legacy, voting, vote buying, media, social media, corruption, and war. Discusses not just what we know on these topics, but how we know it, covering how to craft a good empirical study or field experiment and how to discriminate between reliable and unreliable statistical evidence. Some basic familiarity with probability and/or statistics is useful for this class. Students taking graduate version complete additional assignments.
B. Olken, J. Moscona

14.76 Firms, Markets, Trade and Growth
Subject meets with 14.760
Prereq: 14.01 and (14.30 or permission of instructor)
U (Spring)
4-0-8 units. HASS-S

Examines how industrial development and international trade have brought about rapid growth and large-scale reductions in poverty for some developing countries, while globalization has simply increased inequality and brought little growth for others. Also considers why, in yet other developing countries, firms remain small-scale and have not integrated with global supply chains. Draws on both theoretical models and empirical evidence to better understand the reasons for these very different experiences and implications for policy. Students taking graduate version complete additional assignments.
D. Atkin, D. Donaldson

14.760 Firms, Markets, Trade and Growth
Subject meets with 14.76
Prereq: 14.01 and (14.30 or permission of instructor)
G (Spring)
4-0-8 units

Examines how industrial development and international trade have brought about rapid growth and large-scale reductions in poverty for some developing countries, while globalization has simply increased inequality and brought little growth for others. Also considers why, in yet other developing countries, firms remain small-scale and have not integrated with global supply chains. Draws on both theoretical models and empirical evidence to better understand the reasons for these very different experiences and implications for policy. Students taking graduate version complete additional assignments.
D. Atkin, D. Donaldson

14.770 Introduction to Collective Choice and Political Economy
Prereq: None
G (Fall)
4-0-8 units

Broad introduction to political economy. Covers topics from social choice theory to political agency models, including theories of voter turnout and comparison of political institutions.
A. Banerjee, B. Olken, A. Wolitzky

14.771 Development Economics: Microeconomic Issues
Prereq: 14.121 and 14.122
G (Fall)
5-0-7 units

A rigorous introduction to core micro-economic issues in economic development, focusing on both key theoretical contributions and empirical applications to understand both why some countries are poor and on how markets function differently in poor economies. Topics include human capital (education and health); labor markets; credit markets; land markets; firms; and the role of the public sector.
E. Duflo, B. Olken

14.772 Development Economics: Macroeconomics
Prereq: 14.121 and 14.451
G (Spring)
5-0-7 units

Emphasizes dynamic models of growth and development. Topics include migration, modernization, and technological change; static and dynamic models of political economy; the dynamics of income distribution and institutional change; firm structure in developing countries; development, transparency, and functioning of financial markets; privatization; and banks and credit market institutions in emerging markets. Examines innovative yet disruptive digital technologies, including blockchain, digital assets, crypto currency, distributed ledgers, and smart contracts.
D. Atkins, A. Banerjee, R. Townsend

14.773 Political Economy: Institutions and Development
Prereq: 14.121 and 14.451
G (Spring)
5-0-7 units

Economists and policymakers increasingly realize the importance of political institutions in shaping economic performance, especially in the context of understanding economic development. Work on the determinants of economic policies and institutions is in its infancy, but is growing rapidly. Subject provides an introduction to this area. Topics covered: the economic role of institutions; the effects of social conflict and class conflict on economic development; political economic determinants of macro policies; political development; theories of income distribution and distributional conflict; the efficiency effects of distributional conflict; the causes and consequences of corruption; the role of colonial history; and others. Both theoretical and empirical approaches discussed. Subject can be taken either as part of the Development Economics or the Positive Political Economy fields.
D. Acemoglu, A. Banerjee, J. Moscona

14.775 Comparing Societies
Prereq: None
G (Fall)
4-0-8 units

Studies the cultural, social, and institutional foundations of societies around the world, emphasizing fundamentals and mechanisms that are outside the scope of traditional models in economics. Topics include social organization, perceptions of reality (e.g., the spiritual and meta-human world), drivers of innovation and technology diffusion, conflict, determinants of fertility and population growth, moral frameworks (e.g., views about right/wrong, fairness, equality, and community membership), religion, objectives and definitions of success, and societal equilibria. Emphasizes how research ranging from economic theory to development and policy design can benefit from an understanding of these vast differences that exist around the world. Also considers how these differences affect and are affected by culture, formal institutions, and development. Open to PhD students.
J. Moscona, N. Nunn, J. Robinson

14.78[J] Shaping the Future of Technology: From Early Agriculture to Artificial Intelligence
Same subject as 15.238[J]
Prereq: None
Acad Year 2025-2026: Not offered
Acad Year 2026-2027: U (Spring)
4-0-8 units. HASS-S; CI-H

Provides a framework for thinking about major technological transitions over the past 12,000 years as a means to explore paths to a better future. Discusses who gains or loses from innovation and who can shape the future of artificial intelligence, biotech, and other breakthroughs. Introduces major questions tackled by researchers and relevant to economic policy through faculty lectures, interactive events with prominent guests, and group work. Instruction and practice in oral and written communication provided.
D. Acemoglu, S. Johnson

14.C395[J] Algorithmic and Human Decision-Making (New)
Same subject as 6.C395J
Subject meets with 6.C895J, 14.C895J
Prereq: 6.3700 or ((6.3900 or 6.C01) and (14.30 or 18.600))
U (Spring)
4-0-8 units

Explores how to design machine learning and AI algorithms that enhance human decision-making and tackle real-world societal challenges. Combines statistical ML frameworks with behavioral economics, focusing on applications in areas such as education, finance, economic mobility, and policy. Emphasizes identifying high-impact problems and building effective, reliable solutions. Students taking the graduate version will complete additional assignments.
S. Mullainathan, A. Rambachan

14.C895[J] Algorithmic and Human Decision-Making (New)
Same subject as 6.C895J
Subject meets with 6.C395J, 14.C395J
Prereq: 6.3702 or ((6.3900 or 6.C01) and (14.300 or 18.600))
G (Spring)
4-0-8 units

Explores how to design machine learning and AI algorithms that enhance human decision-making and tackle real-world societal challenges. Combines statistical ML frameworks with behavioral economics, focusing on applications in areas such as education, finance, economic mobility, and policy. Emphasizes identifying high-impact problems and building effective, reliable solutions. Students taking the graduate version will complete additional assignments.
S. Mullainathan, A. Rambachan

14.TAC Teaching Requirement in Economics (New)
Prereq: None
G (Fall, Spring)
3-0-7 units

For graduate students who are fulfilling an academic teaching requirement in the Department of Economics.
Staff

14.THG Graduate Thesis
Prereq: Permission of instructor
G (Fall, IAP, Spring, Summer)
Units arranged
Can be repeated for credit.

Program of research and writing of thesis; to be arranged by the student with advising committee.
Staff

14.THU Thesis
Prereq: 14.33
U (Fall, IAP, Spring, Summer)
Units arranged
Can be repeated for credit.

Program of research and writing of thesis.
Staff

14.UR Undergraduate Research
Prereq: 14.02
U (Fall, IAP, Spring, Summer)
Units arranged [P/D/F]
Can be repeated for credit.

Participation in research with an individual faculty member or research group, independent research or study under the guidance of a faculty member. Admission by arrangement with individual faculty member.
Consult D. Donaldson

14.URG Undergraduate Research
Prereq: 14.02
U (Fall, IAP, Spring, Summer)
Units arranged
Can be repeated for credit.

Participation in research with an individual faculty member or research group, independent research or study under the guidance of a faculty member. Admission by arrangement with individual faculty member.
Consult D. Donaldson