



**HARVARD PH.D. PROGRAM IN HEALTH POLICY
ECONOMICS CONCENTRATION
2011-2012**

The concentration in economics focuses on the economic behavior of individuals, providers, insurers, and international, federal, state, and local governments and actors as their actions affect health and medical care. In addition to examining the literature on health economics, the training emphasizes microeconomic theory, econometrics, and interactions with other disciplines, including clinical medicine. The concentration prepares students for research and teaching careers as health economists.

Courses for students in the Ph.D. in Health Policy economics concentration:

- REQUIRED COURSES
- ELECTIVE COURSES
- FACULTY MEMBERS
- COURSE DESCRIPTIONS

REQUIRED COURSES

- (1) One year of graduate-level microeconomic theory – This requirement is fulfilled by taking Economics 2020a and 2020b (also listed at the Harvard Kennedy School and Harvard Business School).
- (2) Statistics and Econometrics – Economics track students are required to take Introductory Probability and Statistics for Economists (Economics 2110) offered in the Fall and Introduction to Applied Econometrics (Economics 2120) offered in the Spring. Please note that the completion of this sequence also fulfills the two-semester statistics distribution requirement required of all Health Policy Ph.D. students.
- (3) Field Courses – Students must take four one-semester courses in applied fields. These courses could be the public economics sequence (Economics 2450a and 2450b), labor economics (Economics 2810a and Economics 2811 or Economics 2810b), industrial organization (Economics 2610 and 2611), or development economics (Economics 2390b and either 2390c or 2327, intermediate macroeconomics recommended as a prerequisite). The four courses can come from any of the courses listed above. Other graduate level economics courses may be substituted for these courses with permission of the chair of the committee. Such permission, however, will not be routinely granted, and students asking to substitute should have a strong reason for wishing to substitute.
- (4) Health Economics Reading Courses (Economics 2458 or 2465 *and* 3460) – Second-year students must take Health Economics (Economics 2465), led by Professor David Cutler, *and* Research in Health Economics (Economics 3460). These courses prepare students for the qualifying exam in the economics track.
- (5) Research seminar – The program requires the completion of Economics 2460, the Harvard/BU/MIT joint Health Economics Workshop in the second year. Attendance is recommended for third year and higher. This is in addition to the weekly research seminar (Health Policy 3040hf) led by Professor Katherine Swartz, which is required of all third-year and higher Health Policy students.

POSSIBLE ELECTIVES

ECONOMETRICS/STATISTICS

Fall

- Time Series Analysis (Economics 2142) taught by James Stock.
- Computational Economics (Economics 2149) taught by Che-lin Su.
- Analysis of Rates and Proportions (BIO210) taught by Bernard A. Rosner at HSPH.

Spring

- Econometric Methods (Economics 2140) taught by Guido Imbens.
- Advanced Applied Econometrics (Economics 2144) taught by Ariel Pakes.
- Advanced Quantitative Research Methodology (Government 2001) taught by Gary King.
- Analysis of Rates and Proportions (BIO210) taught by Robert Glynn at HSPH.

- Applied Survival Analysis (BIO223) taught by Lee-Jen Wei at HSPH.

ECONOMICS

- One or both semesters of the applied field sequence (Industrial Organization, Labor Economics, Public Economics or Development Economics) that the student did not take in fulfilling the requirement above.

Fall

- Analytic Frameworks for Policy (API-302) taught at HKS by Richard Zeckhauser.
- Psychology and Economics (Economics 2030) taught by Andrei Shleifer and David I. Laibson.
- Market Design (Economics 2056a) taught by Alvin E. Roth and Peter A. Coles (Business School).
- Contract Theory (Economics 2060) taught by Philippe Aghion.
- Normative Economics (Economics 2070) taught by Jerry R. Green

Spring

- Experimental Economics (Economics 2040) taught by Alvin Roth.
- Game Theory I: Equilibrium Theory (Economics 2052), Instructor TBD (taught by Drew Fudenberg in past years)
- Topics in Market Design (Economics 2056b) taught by Gregory Lewis.
- Decision Theory (Economics 2059) taught by Tomasz Strzalecki.
- Law, Economics, and Politics (Economics 2412b) taught by Andrei Shleifer and Elias Papaioannou
- Economics of Science (Economics 2880) taught by Richard B. Freeman.
- Behavioral Approaches to Decision Making and Negotiation (Psychology 2650/HBS 4420) taught by Francesca Gino, Amy Cuddy and Maarten Bos (Business School).

FACULTY ASSOCIATED WITH THE ECONOMICS TRACK

Joseph P. Newhouse, Chair, John D. MacArthur Professor of Health Policy and Management, Faculty of Arts and Sciences, Harvard School of Public Health, Harvard Medical School, and Harvard Kennedy School

Katherine Baicker, Professor of Health Economics, Department of Health Policy and Management, Harvard School of Public Health

David Bloom, Clarence James Gamble Professor of Economics and Demography, Department of Global Health and Population, Harvard School of Public Health

David Canning, Richard Saltonstall Professor of Population Studies, Department of Global Health and Population, Harvard School of Public Health

Amitabh Chandra, Professor of Public Policy, Harvard Kennedy School

Michael Chernew, Professor of Health Care Policy, Department of Health Care Policy, Harvard Medical School

David Cutler, Otto Eckstein Professor of Applied Economics, Department of Economics, Faculty of Arts and Sciences and Harvard Kennedy School

Richard Frank, Margaret T. Morris Professor of Health Economics, Department of Health Care Policy, Harvard Medical School

John Friedman, Assistant Professor of Public Policy, Harvard Kennedy School

David Grabowski, Associate Professor of Health Care Policy, Department of Health Care Policy, Harvard Medical School

Jerry Green, John Leverett Professor and David A. Wells Professor of Political Economy, Faculty of Arts and Sciences and Harvard Business School

William Hsiao, K.T. Li Professor Economic Development and Health, Department of Health Policy and Management and Department of Global Health and Population, Harvard School of Public Health

Robert S. Huckman, Professor of Business Administration, Harvard Business School

Haiden Huskamp, Professor of Health Care Policy, Department of Health Care Policy, Harvard Medical School

Michael Kremer, Gates Professor of Developing Societies, Department of Economics, Faculty of Arts and Sciences

Thomas McGuire, Professor of Health Economics, Department of Health Care Policy, Harvard Medical School

Meredith Rosenthal, Professor of Health Economics and Policy, Department of Health Policy and Management, Harvard School of Public Health

Katherine Swartz, Professor of Health Economics and Policy, Department of Health Policy and Management, Harvard School of Public Health

Richard Zeckhauser, Frank Plumpton Ramsey Professor of Political Economy, Harvard Kennedy School

COURSE DESCRIPTIONS

REQUIRED ECONOMICS AND ECONOMETRICS COURSES

***Economics 2020a. Microeconomic Theory I**

Catalog Number: 0339 Enrollment: Limited to 102.

Christopher N. Avery (Kennedy School) and Elon Kohlberg (Business School)

Half course (fall term). M., W., 8:30-10 and a weekly section to be arranged. EXAM GROUP: 1, 2

A comprehensive course in economic theory designed for doctoral students in all parts of the University. Consumption, production, uncertainty, markets, general equilibrium. Applications to policy analysis and business decisions. Emphasizes the use of economic theory in practical research.

Note: Offered jointly with the Kennedy School as API-111 and with the Business School as 4010.

Prerequisite: Two years of calculus and one course in probability theory. Thorough background in microeconomic theory at the intermediate level. Undergraduates with the appropriate background are welcome.

***Economics 2020b. Microeconomic Theory II**

Catalog Number: 4058

Christopher N. Avery (Kennedy School) and Julian Jamison

Half course (spring term). M., W., 8:30-10 and a weekly section to be arranged. EXAM GROUP: 1, 2

A continuation of Economics 2020a. Topics include game theory, economics of information, incentive theory, and welfare economics.

Note: Offered jointly with the Kennedy School as API-112 and with the Business School as 4011.

Prerequisite: Economics 2010a or 2020a.

Economics 2110. Introductory Probability and Statistics for Economists

Catalog Number: 7213

Rustam Ibragimov

Half course (fall term). M., W., 10–11:30. EXAM GROUP: 3, 4

Introduction to probability and statistics. Emphasis on general methods applicable to both econometrics and economic theory. Topics include probability spaces, random variables, limit laws, estimation, hypothesis testing, and Bayesian methods.

Prerequisite: Statistics (Stat 100), Linear Algebra and Calculus (Math 21a and 21b), and Real Analysis (Math 112).

Economics 2120. Introduction to Applied Econometrics

Catalog Number: 2352

Gary Chamberlain (spring term)

Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17

Introduction to methods employed in applied econometrics, including linear regression, instrumental variables, panel data techniques, generalized method of moments, and maximum likelihood.

Note: Enrollment limited to PhD candidates in economics, business economics, health policy, public policy, and political economy and government (PEG). Offered jointly with the Kennedy School as API-217.

Prerequisite: Economics 2110 or API-209 or the equivalent.

Economics 2460. Health Economics Workshop

Catalog Number: 7617

Joseph P. Newhouse (Kennedy School, Medical School, Public Health), Amitabh Chandra (Kennedy School), and David M. Cutler

Half course (spring term). W., 4–6. EXAM GROUP: 9

Focuses on theory, econometric models, and public policy of health care. Frontier work in health economics presented and discussed by instructors and outside speakers.

Note: May be taken for credit only by dissertation students writing a research paper. Offered jointly with the Kennedy School as SUP-951.

Economics 2465. Health Economics

Catalog Number: 83396

David M. Cutler

Half course (spring term). Tu., Th., (F.), 2:30–4. EXAM GROUP: 7, 8, 16, 17

This course surveys topics in health economics. It touches on public sector issues, the industrial organization of health care markets, interactions between health and labor markets, and health in developing countries. Theory and empirical work are presented.

Economics 3460c (formerly *Economics 3460chf). Research in Health Economics

Catalog Number: 5309

Joseph P. Newhouse (Kennedy School, Medical School, Public Health) 2425

Half course (fall term).

Participants discuss recent research in health economics. Course may also include presentation of original research by participants. Open to doctoral students only.

REQUIRED FIELD COURSES

[Two of the following four sequences in the Economics department are required (4 half courses in total). Additional courses may be taken as electives.]

Economics 2327. Economic Development: Theory, Policy, and Evidence

Catalog Number: 8092

Dani Rodrik (Kennedy School) and Rema N. Hanna (Kennedy School)

Half course (spring term). M., W., 11:40-1, and a weekly section, F., 1-2:30. EXAM GROUP: 4, 5

Provides a graduate-level overview of the theory of and evidence on economic development from a policy-oriented perspective. Aim is to allow students to analyze policy debates surrounding development from a broad and rigorous analytical base.

Note: Offered jointly with the Kennedy School as PED-101.

Economics 2390b. Development Economics I: Microeconomic Issues

Catalog Number: 2990

Erica M. Field and Michael R. Kremer

Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13

Topics include agricultural issues such as peasant behavior, land tenancy, interlinked markets; credit and insurance market problems and institutions; health, nutrition, and productivity; gender bias; education; and technology adoption.

Economics 2390c. Development Economics II: Macroeconomic Issues

Catalog Number: 0388

Michael R. Kremer and Shawn Cole

Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7

The first part will cover macro-economic topics including aggregative and non-aggregative growth models, growth and development accounting and models of technology diffusion and choice. The second part will evaluate the role of governance/institutional design in affecting development.

Note: Offered jointly with the Kennedy School of Government as PED-319.

Economics 2450a. Public Economics and Fiscal Policy I

Catalog Number: 1339

Jeffrey B. Liebman (Kennedy School)

Half course (fall term). M., W., 11:30–1, F., 3–4:30. EXAM GROUP: 4, 5, 8, 9

This course covers basic issues in the optimal design of tax and social insurance policies, with emphasis on combining theoretical models with empirical evidence. Topics include efficiency costs and incidence of taxation, income taxation, transfer and welfare programs, public goods and externalities, optimal social insurance, and welfare analysis in behavioral models.

Prerequisite: Economics 2010a and 2010b or Economics 2020a and 2020b.

Economics 2450b. Public Economics and Fiscal Policy II

Catalog Number: 6478

Martin Feldstein and Edward L. Glaeser

Half course (spring term). M., W., (F.), 11:30–1. EXAM GROUP: 4, 5

This course covers theoretical and empirical applications of public economics to policy debates. Topics include education, local public finance, fiscal federalism, housing policy, corporate and international taxation, social security, and macroeconomic stabilization using fiscal policy.

Prerequisite: Economics 2010a and 2010b or Economics 2020a and 2020b. Students are strongly encouraged to take Economics 2450a before taking 2450b.

Economics 2610. Industrial Organization I

Catalog Number: 3766

Ariel Pakes

Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7

Applied work in industrial organization. Static analysis (theory, estimation): demand systems, cost functions, and game theoretic concepts of equilibrium and their application. Dynamic analysis (theory, computation, estimation): single agent problems, dynamic games and their application.

Economics 2611. Industrial Organization II

Catalog Number: 2302

Gregory M. Lewis

Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7

Application of industrial organization to problems of public policy. Applied analysis of antitrust policy, network industries, vertical relationships, auctions, and other topics depending on interest.

Note: Students are urged to take Economics 2610 before Economics 2611.

Economics 2810a. Labor Market Analysis

Catalog Number: 4862

Lawrence F. Katz and Amanda Pallais

Half course (fall term). M., W., 10–11:30. EXAM GROUP: 3, 4

Theoretical and empirical research on labor markets. Wage determination covers equalizing differences, human capital, job mobility, and incentive models. Labor supply covers life-cycle models. Labor demand includes minimum wage and union models.

Economics 2811. Social Economics

Catalog Number: 5188

Roland G. Fryer

Half course (spring term). Tu., 5:30–8:30 p.m.

Applies the tools of economics to explore social issues including crime, discrimination, racial and gender differences, poverty, family structure, urban problems, social interactions and peer effects, and intergenerational mobility.

ELECTIVE COURSES***ECONOMETRICS/STATISTICS*****Economics 2140. Econometric Methods**

Catalog Number: 7210

Guido W. Imbens

Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14

Econometric methods for cross-section and panel data. Topics include generalized method of moments, empirical likelihood, instrumental variables, bootstrapping, clustering, treatment effects, selection bias, difference-in-differences, qualitative choice, quantile regression, nonparametric methods, and semiparametric methods.

Prerequisite: Economics 2120 or equivalent.

Economics 2142. Time Series Analysis

Catalog Number: 4414

James H. Stock

Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11

A survey of modern time series econometrics. Topics include univariate models, vector autoregressions, linear and nonlinear filtering, frequency domain methods, unit roots, structural breaks, empirical process theory asymptotics, forecasting, and applications to macroeconomics and finance.

Economics 2144. Advanced Applied Econometrics

Catalog Number: 7686

Ariel Pakes

Half course (spring term). M., W., 11:30–1. EXAM GROUP: 4, 5

An introduction to the theory and application of recently developed econometric techniques used in advanced applied work. Simulation techniques, estimation subject to inequality restrictions, as well as semiparametric and nonparametric tools will be studied in a variety of empirical contexts.

Economics 2149. Computational Economics

Catalog Number: 7236

*Che-lin Su**Half course (fall term). M., W., 10–11:30.*

Graduate introduction to computational approaches for solving economic models. Formulate economic problems in computationally tractable form and use techniques from numerical analysis to solve them. Computational techniques in the current economics literature will be examined. Topics include solving dynamic optimization problems, computing equilibria of games and estimating structural models.

Government 2001. Advanced Quantitative Research Methodology

Catalog Number: 8941

*Gary King**Half course (spring term). M., 2–4.*

Graduate-level version of Gov. 1002. Meets with Gov. 1002, introduces theories of inference underlying most statistical methods and how new approaches are developed. Examples include discrete choice, event counts, durations, missing data, ecological inference, time-series cross sectional analysis, compositional data, causal inference, and others. Will require extra homework and examination problems in addition to those for Gov. 1002.

Prerequisite: Government 2000 or the equivalent.

(HSPH) BIO210. The Analysis of Rates and Proportions*Bernard A. Rosner (Fall), M., W., 8:30-10:20**Robert Glynn (Spring), Tu., Th., 8:30-10:20*

5 credits

Emphasizes concepts and methods for analysis of data which are categorical, rate-of-occurrence (e.g., incidence rate), and time-to-event (survival duration). Stresses applications in epidemiology, clinical trials, and other public health research. Topics include measures of association, 2x2 tables, stratification, matched pairs, logistic regression, model building, analysis of rates, and survival data analysis using proportional hazards models.

Course Note: BIO200, or BIO201, or BIO202 and BIO203, or BIO206 and one of BIO207, BIO208, or BIO209, or signature of instructor required; lab or section times to be announced at first meeting.

(HSPH) BIO223. Applied Survival Analysis*Lee-Jen Wei (Spring), Tu., Th., 10:30-12:20, 5 credits*

This course will cover topics in both discrete data analysis (25% of class) and applied survival analysis (75% of class). The course will begin with a review of sampling plans and contingency table for discrete data. Further topics in discrete data analysis will include logistic regression, exact inference, and conditional logistic regression. This short survey of discrete data topics will provide a natural transition to analysis of survival data. Survival topics include: hazard, survivor, and cumulative hazard functions, Kaplan-Meier and actuarial estimation of the survival distribution, comparison of survival using log rank and other tests, regression models including the Cox proportional hazards model and accelerated failure time model, adjustment for time-varying covariates, and use of parametric distributions (exponential, Weibull) in survival analysis. Class material will include presentation of statistical methods for estimation and testing, along with current software (SAS, Stata, Splus) for implementing analyses of discrete data and survival data. Applications to real data will be emphasized.

Course Note: BIO210, BIO213, or BIO230 required, or signature of instructor.

ECONOMICS COURSES**Economics 2030. Psychology and Economics**

Catalog Number: 3828

Andrei Shleifer and David I. Laibson

Half course (fall term). W., 1-3. EXAM GROUP: 6, 7

Explores economic and psychological models of human behavior. Topics include bounded rationality, intertemporal choice, decision making under uncertainty, inference, choice heuristics, and social preferences. Economic applications include asset pricing, corporate finance, macroeconomics, labor, development, and industrial organization.

Note: Primarily for graduate students but open to undergraduates.

Prerequisite: Knowledge of multivariable calculus and econometrics.

Economics 2040. Experimental Economics

Catalog Number: 8485 Enrollment: Limited to 48.

Alvin E. Roth (FAS, Business School)

Half course (spring term). Hours to be arranged.

An introduction to experimental economics, and some of the major subject areas that have been addressed by laboratory experiments. We concentrate on series of experiments, to see how experiments build on one another.

Note: Open to undergraduates with permission of the instructor. Offered jointly with the Business School as 4160.

Economics 2052. Game Theory I: Equilibrium Theory

Catalog Number: 3690

Instructor to be determined

Half course (spring term). M., 4-7 pm. EXAM GROUP: 9

Equilibrium analysis and its applications. Topics vary, but typically include equilibrium refinements (sequential equilibrium), the equilibria of various classes of games (repeated games, auctions, signaling games) and the definition and application of common knowledge.

Prerequisite: Economics 2010a or permission of the instructor.

Economics 2056a. Market Design

Catalog Number: 3634

Alvin E. Roth and Peter A. Coles (Business School)

Half course (fall term). F., 9–12. EXAM GROUP: 2, 3, 4

Deals with the theory and practice of market design, with prominent examples drawn from auctions, labor markets, school choice, and kidney exchange.

Note: Open to undergraduates with permission of the instructors. Offered jointly with the Business School as 4150.

Prerequisite: Game theory.

Economics 2056b. Topics in Market Design

Catalog Number: 0402

Gregory M. Lewis

Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7

Studies topics in market design, focusing on auctions, auction-based marketplaces and platform markets. Covers methods and results from theory, empirical work, econometrics and experiments, highlighting practical issues in real-world design.

Economics 2059. Decision Theory

Catalog Number: 3825

Tomasz Strzalecki

Half course (spring term). M., 2:30–5:30. EXAM GROUP: 7, 8, 9

The course focuses on classical models of choice in abstract settings, as well as uncertain and intertemporal environments. We will also study recent models that incorporate insights from psychology, such as temptation and self-control.

Economics 2060. Contract Theory

Catalog Number: 1404

Philippe Aghion

Half course (fall term). M., W., 11:30–1. EXAM GROUP: 4, 5

Recent developments in contract theory. Includes hidden action and hidden information models, dynamic agency issues, incomplete contracts, and applications of contract theory to theories of the firm and corporate financial structure.

Economics 2070. Normative Economics

Catalog Number: 5647

Jerry R. Green

Half course (fall term). M., W., F., at 10. EXAM GROUP: 3

This course offers a rigorous approach to normative economics. Voting, bargaining, cooperative game theory, social choice, mechanism design, equitable cost allocation, fair division, welfare analysis of taxation, and more. Students should have an interest and ability to work with abstract mathematics and axiomatic reasoning.

Economics 2412b. Law, Economics, and Politics

Catalog Number: 62703

Andrei Shleifer and Elias Papaioannou

Half course (spring term). W., 2–4. EXAM GROUP: 7, 8

The course will discuss a range of topics covering political economy and law and economics. The topics will include: determinants of economic growth, social capital, legal systems and traditions, regulation, courts, public and private ownership, and economic transition.

Economics 2880. Economics of Science

Catalog Number: 7488

Richard B. Freeman

Half course (spring term). Th., 2:30–5:30. EXAM GROUP: 16, 17, 18

Analyzes economic issues regarding the role of science and RD in the economy and in the deployment and productivity of scientists, engineers, and highly skilled technical workers. Topics include: wage levels/employment prospects; stipend policy, education/recruitment, student unionization/post-doc organization, career choices/trajectories, with reference to women; scientific competition/collaboration.

(HKS) API-302 Analytic Frameworks for Policy

Richard Zeckhauser

Fall. Tu., Th., 10:10 -11:30, Review F., 1:10 - 2:30.

This course develops abilities in using analytic frameworks in the formulation and assessment of public policies. It considers a variety of analytic techniques, particularly those directed toward uncertainty and interactive decision problems. It emphasizes the application of techniques to policy analysis, not formal derivations. Students encounter case studies, methodological readings, modeling of current events, the computer, a final exam, and challenging problem sets. *Prerequisites:* An understanding of intermediate-level microeconomic theory and introductory techniques of optimization and decision analysis; API-101, API-102, or equivalent.

HBS 4420/Psychology 2650. Behavioral Approaches to Decision Making and Negotiation

Francesca Gino, Amy Cuddy and Maarten Bos

Fall: M. 3:00 - 6:00

This course will provide an overview of the field of behavioral decision making. A focus of the course will be the individual as a less than perfect decision maker in individual and competitive contexts. On the decision making side, we will start with March and Simons (1958) work on bounded rationality, work through the groundbreaking research of Kahneman and Tversky, and update this line of inquiry through the current decade. We will examine the implications of imperfect behavior for theoretical development, as well as for how to train individuals to make wiser decisions. This course will involve students in an intensive, thorough survey of the intersection of analytic and behavioral perspectives to decision making and negotiation. Each class we will cover an area in depth, explicate some major perspectives in the field, review a select set of readings, and discuss some of the critical issues that have been raised with regard to theory and experimentation.

RESEARCH SEMINARS and WORKSHOPS

These seminars and workshops have been found to be useful by students enrolled in related field work. Attendance is recommended but courses do not count for credit towards program or concentration requirements. In the 2000-level research seminars (often referenced to as “lunches”), graduate students present research in progress. In the 3000-level workshops, presentations are by members of the various Harvard faculties, outside speakers, and graduate students on the job market.

***Economics 2390dhf. Research in Economic Development**

Catalog Number: 1926

Sendhil Mullainathan 5139 (on leave 2011-12), Philippe Aghion 1263 (on leave spring term), Richard A. Hornbeck 6423 (on leave 2011-12), Asim I. Khwaja (Kennedy School) 3994, and Michael R. Kremer 2112

Half course (throughout the year). Hours to be arranged.

Participants discuss recent research in development economics and present their own work in progress. Open to doctoral students in economics who have passed their oral examinations.

Note: Popularly known as the Development Lunch.

Economics 2480. Research in Public Economics and Fiscal Policy: Research Seminar

Catalog Number: 6834

Raj Chetty 6276 (on leave fall term), David M. Cutler 2954, and Martin Feldstein 1509

Full course. Tu., 1–2:30. EXAM GROUP: 15, 16

Participants discuss recent research in public economics and fiscal policy and present their own work in progress. Open to doctoral students in economics who have passed their oral examinations.

Economics 2640hf. Research in Industrial Economics

Catalog Number: 5981

Ariel Pakes 1774, Susan Athey 5334 (on leave spring term), and Gregory M. Lewis 5868

Half course (throughout the year). Tu., 11:30–1. EXAM GROUP: 13, 14

Participants present their own research in progress in an informal setting. Open to doctoral students in economics who have passed their general examinations and are in the early stages of their dissertations.

***Economics 2812hf. Research in Labor Economics**

Catalog Number: 0230

Lawrence F. Katz 1480, Roland G. Fryer 5523, Edward L. Glaeser 3219, Claudia Goldin 2667, and Amanda Pallais 1652

Half course (throughout the year). Tu., 1–2:30.

Participants discuss recent research in labor economics and present their own work in progress. Open to doctoral students in economics who have passed their oral examinations.

***Economics 3011. The Behavioral and Experimental Economics Workshop**

Catalog Number: 0109

David I. Laibson 1241, Alvin E. Roth 564, and Tomasz Strzalecki 6294

Half course (fall term; repeated spring term). Tu., 2:30–4.

For students with an interest in economic theory. Faculty presentations by Harvard and MIT economists and invited guests. The location alternates between Harvard and MIT.

Prerequisite: Economics 2010a (or 2020a) and 2010b (or 2020b).

***Economics 3390hf. Economic Development Workshop**

Catalog Number: 2532

Michael R. Kremer 2112, Richard A. Hornbeck 6423 (on leave 2011-12), Asim I. Khwaja (Kennedy School) 3994, and Sendhil Mullainathan 5139 (on leave 2011-12)

Half course (throughout the year). Fall: Tu., 2:30–4; Spring: W., 2:30–4.

Fall speakers cover issues in growth and development. Spring speakers alternate between “growth and institutions,” focusing on the macro aspects of growth and development, and “labor and development,” focusing on the micro aspects.

***Economics 3450hf. The Public Economics and Fiscal Policy Seminar**

Catalog Number: 3436

David M. Cutler 2954, Raj Chetty 6276 (on leave fall term), Edward L. Glaeser 3219, and Lawrence F. Katz 1480

Half course (throughout the year). M., 4–6.

Invited speakers present theoretical and empirical research on a broad range of topics related to the design of government policy.

***Economics 3650hf. The Industrial Organization Workshop**

Catalog Number: 3318

Susan Athey 5334 (on leave spring term), Gregory M. Lewis 5868, and Ariel Pakes 1774

Half course (throughout the year). M., 2:30–4.

Speakers present current research in the field in a seminar setting.

***Economics 3810chfr. The Labor Economics Workshop**

Catalog Number: 4066

Lawrence F. Katz, Richard B. Freeman, Roland G. Fryer, and Amanda Pallais

Half course (throughout the year). W., 4–5:30.

Outside speakers present research concerning the operation of labor markets.