

UNIVERSITY OF HOUSTON

GRADUATE STUDY IN ECONOMICS

The Department of Economics offers a program leading to the Ph.D. degree in Economics designed to provide students rigorous training in economic theory and quantitative skills as well as an intensive exposure to several specialized areas of Economics. The Ph.D. training provides skills needed in academic, government, or business careers.

Graduate students in the University of Houston Department of Economics are subject to all regulations of the Graduate School and the College of Liberal Arts and Social Sciences. The rules are found in the University of Houston Graduate Catalog, which can be found online at http://www.uh.edu/grad_catalog/. The requirements discussed below are additional requirements that apply to graduate students in economics.

THE DOCTORAL PROGRAM IN ECONOMICS

The new doctoral student begins a year of intensive course work in microeconomic theory, macroeconomic theory, statistics, and econometrics. During the summer after the first year, the student is required to take the economic theory comprehensive exam. Upon receiving a grade of "superior" in both the micro and macro parts of the exam, the student becomes a candidate for the Ph.D. degree. The following table outlines the first two years of course work, examination requirements, and dissertation work.

Ph.D. FIRST YEAR

COURSES

Fall

6342 Micro Theory I
6344 Macro Theory I
6331 Statistical Methods

Spring

7342 Micro Theory II
7344 Macro Theory I
7331 Econometrics I

Summer: Doctoral Research and Comprehensive Exam Review

EXAMINATIONS

Economic Theory Comprehensive Exam

During the second year, the student takes elective courses in areas including but not limited to: comparative systems, computational, development, econometrics, experimental, growth, industrial organization, international macro, international trade, labor, macroeconomics, public finance, regional, and urban. The economic theory comprehensive is offered again in January of the second year for those students who do not receive a Superior in the summer offering. . Students must receive a "superior" grade on both parts of the theory comprehensive exam by January of the second year in order to continue in the Ph.D. program.

Ph.D. SECOND YEAR

COURSES

Fall	Spring
8331 Econometrics II	elective
elective	elective
elective	elective

Summer: Doctoral Research

EXAMINATIONS Superior on Economic Theory Comprehensive Exam
(by January of second year)

The third program year is transitional: students begin to focus on independent research as well as formal course work. The student is expected to enroll in elective courses and begin to focus on a dissertation topic area.

The fall and spring Ph.D. workshops (8361 and 8362) are offered to help students move into independent research. The workshops involve faculty supervised formal student presentations of original student research. Third year students are encouraged to take the Ph.D. workshops and begin collaboration with a Ph.D. dissertation advisor.

Ph.D. THIRD YEAR

COURSES

Fall	Spring
elective	elective
elective	elective
elective or 8361 workshop	elective or 8362 workshop

Summer: Doctoral Research

DISSERTATION Designation of Dissertation Chair Recommended

The fourth program year signals a further transition from course work to dissertation research. Students in the fourth year and above are required to take the 8361 and 8362 workshops. The fifth and later Ph.D. program years include 6 dissertation hours per semester. These final years are devoted to research under the supervision of the dissertation committee chair.

Ph.D. FOURTH YEAR

COURSES

Fall

8361 workshop
6 dissertation hours

Spring

8362 workshop
6 dissertation hours

Summer: Doctoral Research

DISSERTATION

In Progress

Ph.D. FIFTH YEAR

COURSES

Fall

8361 workshop
6 dissertation hours

Spring

8362 workshop
6 dissertation hours

Summer: Doctoral Research

EXAMINATIONS

Oral Dissertation Defense

DISSERTATION

Completion

Ph.D. Requirements

1. 60 hours of course work composed of the following:

a. THEORY (12 hours)

Micro I,II ECON 6342, 7342
Macro I,II ECON 6344, 7344

b. QUANTITATIVE (9 hours)

Statistics	ECON 6331
Econometrics I	ECON 7331
Econometrics II	ECON 8331

c. Ph.D. WORKSHOPS IN APPLIED MICRO OR MACRO (6 hours)

ECON 8361 or ECON 8362 is required every semester beginning in the fourth year and continuing until the Ph.D. is awarded. Maximum credit towards the Ph.D. is 6 hours.

d. SPECIALTY FIELDS (12 hours)

6 hours in each of two specialty fields

e. ELECTIVES (21 hours)

A maximum of 12 hours of electives may be taken as readings courses, Ph.D. workshops taken in the third year, and courses taken outside the department. Additional hours may be allowed subject to the discretion of the graduate director. These 12 hours are subject to the following restrictions:

6 hours maximum in readings courses (ECON 6398)

6 hours maximum for Ph.D. Workshops (ECON 8361 and 8362) taken in the third year

6 hours maximum (subject to the discretion of the graduate director) for courses taken outside the department

2. Grade point average in graduate classes of at least 3.0 (4.0=A)
3. Grade of superior on both parts of the theory comprehensive exam.
4. Doctoral research and dissertation hours do not count toward the 60 hours of course work.
5. Successful completion and defense of the dissertation.

The dissertation will be supervised by a committee agreed upon by the student, the primary faculty dissertation advisor, and the graduate director. Typically, the committee is composed of the primary faculty advisor (committee chair), two other faculty advisors from the department, and one member from outside the department.

The Ph.D. degree is awarded when the student has successfully defended his or her dissertation before the graduate faculty of the department and turned in the completed thesis to the appropriate university office.

M.A. Requirements

The Department does not offer a terminal masters program. However, for students who decide to leave the program before fulfilling the Ph.D., an M.A. degree will be awarded upon the completion of the following requirements.

1. 36 hours of course work composed of the following:
 - a. THEORY (12 hours)
Micro I,II ECON 6342,7342
Macro I,II ECON 6344,7344
 - b. QUANTITATIVE (9 hours)
Statistics ECON 6331
Econometrics I ECON 7331
Econometrics II ECON 8331
 - c. SPECIALTY FIELD (6 hours)
 - d. ELECTIVES (9 hours)

3 hours maximum in readings courses (ECON 6398)

3 hours maximum (subject to the discretion of the graduate director) for courses taken outside the department

2. Grade point average in graduate courses of at least 3.0 (4.0=A).
3. Grade of pass or better on both parts of the theory comprehensive examination.
4. Doctoral research hours do not count toward the 36 hours of course work.

COURSE LOAD

All graduate students receiving financial aid from the department are required to register for nine hours each semester during the regular academic year and six hours in the summer.

Full-time graduate students not receiving financial aid must register for a minimum of 9 hours each semester during the regular academic year.

COMPREHENSIVE EXAMINATION IN ECONOMIC THEORY

A written examination in micro and macro theory is required after the completion of the second regular semester of full-time course work. The theory examination is given in July after the student's first year. The exam is offered again in January of the second year. The exam grade determines advancement to Ph.D. candidacy and financial aid status. Theory exam performance is ranked on the following scale:

Superior. The student satisfies the exam requirement for the M.A. degree and can be admitted to candidacy to the Ph.D. program in economics. A grade of "superior" on both parts of the comprehensive exam is required for admission to candidacy in the Ph.D. program.

Good. The student satisfies the exam requirement for the M.A. degree. The student is not eligible for admission to the Ph.D. program, but may retake the examination the next time it is offered. If the student later receives a grade of superior, then the student can be admitted to candidacy for the Ph.D. program.

Pass. The student satisfies the exam requirement for the M.A.

Fail. The student does not satisfy the exam requirement for the M.A.

LEAVE OF ABSENCE

A student may apply for a leave of absence if she intends to withdraw from the department for a specific period of time after which studies will be resumed. A leave of absence is only granted for a stated time period, not to exceed one year, except for military service. A previously enrolled student who is not currently registered in the Department, and has not applied for a leave of absence, will be automatically dropped from the program. To resume academic work, the dropped student must apply for reinstatement to the graduate program. The university may also impose a financial penalty.

CHANGE IN REQUIREMENTS

Students may petition the graduate director for permission to deviate from particular program requirements. Such petitions must be in writing and should include a justification for the proposed change.

TRANSFER OF CREDITS

The Economics department allows a maximum of 6 hours to be transferred from graduate courses taken at other schools toward an M.A. in Economics. The graduate director will determine the transferability of credits. The university allows more credits to be transferred toward a Ph.D. at the discretion of the graduate director.

The department encourages students who have received their M.A. elsewhere to enroll in the Ph.D. program. If a student has an M.A. in Economics from another university, equivalent courses may be waived and credit transferred toward a Ph.D. However, the doctoral transfer student must receive a grade of superior on both parts of the theory examination administered by the University of Houston Economics Department.

ADMISSION TO THE GRADUATE PROGRAM IN ECONOMICS

Application Deadline: February 1 to be considered for a graduate assistantship, and May 1 for fall enrollment without an assistantship. Applications are not accepted for spring or summer enrollment. The application deadline may be extended under exceptional circumstances. Please contact the Graduate Program Administrator, Department of Economics, Houston, Texas 77204-5019 or email apozo@uh.edu. For information on applying to the University of Houston, visit www.uh.edu in the Admissions section. You can complete the online application at the following link: <http://www.applytexas.org>.

To be admitted to the graduate program, a student

1. must receive a satisfactory score of on the Verbal and Quantitative sections (minimum score of 1000 required) of the Graduate Record Examination (GRE).
2. whose native language is not English must receive a score of at least 550 on the Test of English as a Foreign Language (TOEFL). This requirement is waived for students' with a degree from a U.S. college or university.
3. must satisfy the requirements of the Graduate School and the College of Liberal Arts and Social Sciences.
4. must be accepted by the Graduate Faculty of the Department of Economics.

Previous undergraduate specialization in economics is not required, but at a minimum, entering students should have successfully completed courses in intermediate micro theory, intermediate macro theory, and basic mathematics such as calculus and matrix algebra. Students with deficiencies in any of these areas must remedy them before beginning the program by taking needed courses from:

1. Intermediate Economic Theory (Econ 3332 & 3334)
2. Mathematics

Calculus I (MATH 1431) and Linear Algebra (MATH 2331) required.

Calculus II and III (MATH 1432, 2433) strongly recommended.

Credit will not be given toward the M.A. or Ph.D. for courses taken to satisfy mathematics deficiencies.

OFFICE SPACE AND FACILITIES

The Department provides most graduate students with office space for study and interaction with other students. The department also runs a fully equipped graduate student computer lab with state-of-the-art personal computers and software. The campus network also provides access to Unix workstations, Vax minicomputers, an IBM mainframe, super-computers, campus libraries, and the internet.

FINANCIAL AID

The department offers several assistantships for academic support, research, or teaching in the first year. These positions pay a monthly stipend and allow tuition to be waived and fees to be paid at in-state rates. These stipends cover the 9-month school year and very often some or all of the summer months. Summer support, however, is not guaranteed. All financial support is allocated by the department graduate director and is contingent upon available funding.

In return for financial support, and as part of graduate training in economics, graduate assistants help with instruction and research. Compensation is directly related to hours of work and level of responsibility. Research assistants work 12 hours per week supporting faculty teaching and research. Teaching assistants teach a section of introductory economics. Academic support assistants work 3 hours a week in the undergraduate tutor center and help with proctoring of exams. All assistantships are awarded on a competitive basis under the following guidelines:

Entering Students. Only students with outstanding transcripts, GRE scores and other favorable credentials are offered aid in the first year. The Graduate Committee allocates these assistantships. Supplemental funding is also available, on a competitive basis, from the Office of Graduate and Professional Studies.

Second through Fifth Year. Any full time student on financial aid making satisfactory progress in the program is assured partial aid in the second through the fourth year.

A student who was awarded aid in the first year will receive aid in the second year if the student has taken the theory exam and maintained a 3.0 grade point average. Students who receive a superior on the theory examination and maintain good progress will receive financial aid in their third and fourth years. Aid in the fifth year is provided if the candidate is making good progress on the dissertation.

Only senior graduate students with the requisite academic performance and communication skills are assigned as teaching assistants.

Responsibilities and Progress. Students are expected to perform their research and teaching responsibilities in a professional manner. Poor performance can result in the loss of financial aid.

THE DEPARTMENT OF ECONOMICS

Since its inception in 1958, the University of Houston Economics Doctoral Program has prided itself on training economists to take positions in academia, business, and government. The faculty is a young and dynamic community of research economists. In studies of research productivity, the Department has been ranked among the top 40 economics departments in the United States.

GRADUATE PROGRAM ADMINISTRATORS

The Director of Graduate Studies provides general advising to enrolled graduate students and manages all aspects of the economics graduate program.

The Graduate Program Administrator is a full-time staff member who handles the administrative functions of the graduate program such as mailing information to prospective students, maintaining admission files, maintaining current students' files, and certifying the completion of degree requirements.

THE UNIVERSITY OF HOUSTON

Ranked among the top 80 research universities in the United States, the University of Houston is a state funded institution serving a diverse student body. The University of Houston is the largest of the four campuses within the University of Houston System with a total enrollment of about 32,000 students.

The College of Social Science offers doctorates in Economics, Political Science, and Psychology. The University of Houston is also home to a number of professional schools including, architecture, business, law, optometry, pharmacy, and social work. The main library at the University of Houston houses about 1.4 million volumes and is part of the Texas University Library Consortium and the Houston Area Research Library Consortium.

Located on 450 beautifully landscaped acres, just southeast of downtown Houston, the University campus offers extensive student services and housing. The campus supports many popular sporting and cultural events, all easily accessible to graduate students.

THE CITY OF HOUSTON

Houston is the nation's fourth largest city. Houston is incredibly diverse and international, but the city also reflects the native Texas "can do" spirit. One of the nation's largest seaports, Gulf Coast beaches and recreation areas are within an hour's drive of the city. The local economy is expanding, diverse, and international. In addition to oil and manufacturing, the city is a leader in finance, health care, retailing, engineering, construction and international trade. The Johnson Space Center develops and coordinates NASA's manned space flights. The Texas Medical Center is internationally famous for medical research, education and patient care. Two commercial airports serve the Houston metropolitan area.

Houston offers an enormous range of entertainment, shopping, restaurants, and arts scene. The opera, ballet, modern dance and theater companies are nationally recognized. Houston is home to professional football, baseball, basketball (NBA and WNBA), soccer, and hockey. Outstanding University of Houston and Rice University collegiate teams compete as well.

BASIC GRADUATE ECONOMICS COURSES

ECON 6331: Quantitative Economic Analysis

Statistical basis for applied economic analysis, which includes discrete and continuous distributions, point estimation, tests of hypotheses, methods of estimation and properties of estimators.

ECON 6337: History of Economic Thought

In this course the student will critically examine classics of economic thought including Adam Smith's *Wealth of Nations*, David Ricardo's *Principles of Political Economy and Taxation*, Leon Walras' *Elements of Pure Economics*, Alfred Marshall's *Principles of Economics*, and John Maynard Keynes' *The General Theory of Employment, Interest and Money*.

ECON 6342: Microeconomic Theory I

Modern microeconomic theory of decision and allocation in a market economy. Topics include theories of the consumer, the firm, and competitive markets under complete and incomplete information.

ECON 6344: Macroeconomic Theory I

Analytic tools of contemporary macroeconomics, including static analysis of classical and Keynesian models and the aggregate behavior of consumers, investors, and asset holders.

ECON 6355: Economic Development of Asia

Economic and social problems of raising standards of living in Asia. Discussion issues include economic growth, growth and the environment, income disparities, the role of trade and foreign investment, and the accompanying political and social changes.

ECON 6365: Economics of Wage and Employment

Determination of wages, hours of work, and labor force participation. Topics in labor demand, unemployment, labor mobility, fertility, income distribution, and union behavior.

ECON 6366: Topics in Industrial Organization and Policy

Selected topics in the structure, conduct, and performance relationships in a variety of industries and public policies toward business.

ECON 6368: Economics of Project Evaluation

Theory and application of project evaluation: welfare, investment decision rules, opportunity cost of public funds, risk and uncertainty; applications from various areas.

ECON 6371: Monetary Policy and Financial Institutions

Analysis of financial markets and institutions, the supply of money, and the formulation and implementation of monetary policy.

ECON 6380: State and Urban Finance

Analysis of government tax and expenditure at the state and local level, with consideration of underlying determinants of local public sector budgets.

ECON 6381: Economic Development of the United States

Analysis of the economic development of the U.S. with emphasis on the interaction of markets and political institutions.

ECON 6394: Applications in Economics

Application of econometric methods for forecasting and policy analysis.

ECON 6397: Regional Economics

Economics of location decisions for firms and residents, spatial pricing, regional factor flows, and regional input-output analysis.

ECON 6398: Readings in Advanced Economics

Independent study supervised by faculty member.

ECON 7331: Econometrics I

Regression analysis and the general linear model. Topics covered include ordinary least squares, heteroskedasticity, autoregression, distributed lags, and generalized least squares.

ECON 7342: Microeconomic Theory II

Continuation of ECON 6342. Topics include market structure, centralized and decentralized decisions, alternative allocation mechanisms, contracts, capital theory, general equilibrium.

ECON 7344: Macroeconomic Theory II

Continuation of ECON 6344. Topics include dynamic analysis, long run growth, stochastic macroeconomics, and theories of expectations. Emphasis on recent literature in macroeconomic theory.

ECON 7349: Game Theory and Economic Behavior

Modeling and analysis of strategic situations. Topics include cooperative game theory, simultaneous-move games and Nash equilibrium, sequential-move games and subgame perfect equilibrium, and applications.

ECON 7350: Economic Growth and International Development

This course presents current work on economic growth and international development, focusing on empirical and quantitative approaches. It will cover a wide range of topics such as development accounting, world income distribution, financial aspects of growth and income determination in open economies, international and regional capital flows, macroeconomic policy, capital market integration, current issues in economic and monetary unions and facts of globalization.

ECON 7351: Development Economics: Microeconomic Issues

Examines the micro foundations of economic development, including education, health, the family, land, credit, risk and institutions. Teaches econometric tools that have been used by researchers to identify causal relationships, including panel data, instrumental variables, randomized experiments and natural experiments.

ECON 7362: Computational Economics

This course explores economic modeling using computational methods. Topics include algorithms for solving models, the numerical analysis of results, and the robustness of the results. An interest in computers is essential; a knowledge of a programming language is useful.

ECON 7364: Experimental Economics

Introduction to experimental methodology as practiced for economic research. Experimental design choices in major papers are discussed, critically appraised, and assessed for their subsequent impact on experimental practice.

ECON 7365: Empirical Labor Economics

This course is designed to serve as an introduction to empirical labor economics. The course has three major parts: labor demand, labor supply, and human capital. Students with no background in labor economics might also want to review the undergraduate textbook *Modern Labor Economics* by Ehrenberg and Smith.

ECON 7375: Topics in Industrial Organization

Provides an introduction to a wide range of topics in Industrial Organization. Topics covered include industry dynamics, geographic distribution of industrial activity, evolution of industry structure and size distribution of firms, and a variety of empirical techniques used to analyze micro data.

ECON 7376: Industrial Organization

This course examines how industries are organized and how that affects their economic performance. Topics include the modern business firm and its vertical relations, market structure and the marketing strategies it can encourage including innovation, with attention to network industries and their problems of compatibility and standardization.

ECON 7377: Public Finance

Selected topics in the incidence and effects of government revenues, expenditures, and debt.

ECON 7380: Macroeconomic Modeling and Forecasting

Quantitative macroeconomic relationships and econometric forecasting models.

ECON 7387: Economic Analysis of Urban Areas

Markets for housing and sites, determinants of land use patterns. Topics include demand, rent and density gradients, racial discrimination, land use regulation, transportation access.

ECON 7392: Economic History

This course examines the economic history of the United States, Europe, and Asia using the New Institutional Economics to explain economic growth and institutional change in these regions, particularly focusing on the different models of growth that have emerged in North America, Europe, and Asia.

ECON 7393: Time Series Analysis

Focuses on the theory and application of univariate time series methods. Topics covered include both stationary and nonstationary time series, with an emphasis on inference in nonstationary processes, e.g. unit root tests.

ECON 7396: Topics in Economic Development

The development of world economy, emphasizing preconditions of progress, changes in economic structure, the role of planning, and the problems of underdeveloped economies.

ECON 7398: International Monetary Economics

Exchange rates, balance of payments, macroeconomic policy, international financial markets, and the international

monetary system.

ECON 8300: Advanced Seminar in Current Economic Research

Continuation of ECON 7300. May be repeated with consent of instructor.

ECON 8331: Econometrics II

Estimation methods in single-equation and simultaneous equations models. Topics include missing observations, errors in variables, and limited dependent variables.

ECON 8342: Microeconomic Theory III

Concentration on recent microeconomic theory literature.

ECON 8344: Macroeconomic Theory III

Concentration on recent macroeconomic theory literature.

ECON 8361 and 8362: Workshop in Research Methods III and IV

Formulation, execution, and presentation of a research paper in economics.

ECON 8396: International Trade

Causes and consequences of international trade, theories of comparative advantage, theory and measurement of tariffs, capital movements, and multinational corporations.