School of Economic, Political and Policy Sciences

Graduate Programs in Economics

Doctor of Philosophy in Economics
75 semester credit hours minimum beyond the baccalaureate degree

Program Faculty

Professors: Daniel G. Arce, Kurt J. Beron, Dong Li, Donggyu Sul

Associate Professors: Rodney Andrews, Seth Gertz, Susan Williams McElroy, Darwin (Trey) Miller, Irina Panovska, Kevin Siqueira, Victor Valcarcel

Assistant Professors: Anne Burton, Jonas Hedlund, Maria (Camila) Morales

Professor Emeritus: Todd Sandler

Mission

The mission of the PhD in Economics is to train students in both economic theory, econometric techniques, and data analysis. Students should gain expertise in at least two fields within economics and gain the skills necessary to produce original research in these areas. The goal is for students to think critically on how to analyze economic problems and to contribute to the knowledge base of the discipline.

Facilities

Students have access to the computing facilities in the School of Economic, Political and Policy Sciences and the University's computer labs. The school has four computing laboratories which house 24-30 computers that are network linked and equipped with major social science software packages, including EViews, R, RATS, SPSS, and Stata. A computerized geographic information system, the LexisNexis database, and Westlaw are also available for student use. The University's computer labs provide personal computers and UNIX workstations.

Admission Requirements

The University's general admission requirements are discussed on the Graduate Admission page.

Applicants will be judged and evaluated by the existing admission standards as set forth by the University in its graduate catalog. These standards include a bachelor's degree from an institution of higher education, fluency in written and spoken English, a grade average of 3.25 or better in upper-division and graduate course work in economics and related courses, submission of official Graduate Record
Examination (GRE) scores: the minimum quantitative score is 158 with students averaging 163 on the quantitative score and 150 of the verbal score. The program does not accept GMAT scores as a substitute for GRE scores.

Standardized tests scores are only one of the factors taken into account in determining admission. Given the demands that will be placed on the student in his/her study of economics, a strong background in calculus, linear algebra, and mathematical statistics is highly desirable.

Students should submit all transcripts, three letters of recommendation, a résumé, and a one-page essay outlining the applicant's background, reasons for choosing UT Dallas, prior educational experiences, and personal objectives. The end of each applicant's résumé should include a listing of undergraduate and graduate math (and math-intensive) courses completed and grades for these courses. For courses whose names do not reveal course content (e.g., "Advanced Math"), include brief details from course catalog listings. Applicants not submitting résumés should still upload a listing of formal math training.

Prerequisites

Students lacking the required background to begin the economics PhD program are advised to take courses at the School of Economic, Political and Policy Sciences to in order to prepare for the program. However, students will not receive PhD credit for such courses. The following courses may help students acquire the prerequisite knowledge (i) ECON 3310 Intermediate Microeconomic Theory; (ii) ECON 3311 Intermediate Macroeconomic Theory; (iii) ECON 4351 Mathematical Economics; (iv) EPPS 7316 Regression and Multivariate Analysis or ECON 4355 Econometrics; (v) EPPS 7313 Descriptive and Inferential Statistics or equivalent. Students should also have completed undergraduate courses in calculus and matrix or linear algebra. Additional math courses, such as differential equations, mathematical statistics and real analysis, are useful.

Degree Requirements

The University's general degree requirements are discussed on the Graduate Policies and Procedures page.

Students not making satisfactory progress towards degree requirements may be subject to loss of funding, academic probation, and/or dismissal from the Economics Program.

Students seeking a PhD in Economics must complete 75 graduate semester credit hours. In addition, students must (i) complete core courses with an average GPA of at least 3.0 where grades for each course are 'C' or better; (ii) pass comprehensive exams in micro- and macroeconomic theory and econometrics (although the econometrics exam will be waived for students who complete required econometrics courses with an average grade of A- or better); (iii) write an acceptable research paper and present the paper to the Economics Program by the end of the seventh semester of study, (iv) be certified in two research areas (i.e., fields) within the science of Economics; (v) schedule and successfully defend their dissertation proposal and (vi) defend their dissertation, submitting an approved dissertation. The following elaborates on these requirements.

Students are required to complete the following core courses:

ECON 6301 Microeconomics Theory I
During their first semester, students will also be required to take a course in statistics, with the specific course determined by the Director of Graduate Studies. Students must have at least a 3.00 average in ECON 6301, ECON 6302, ECON 6305, ECON 6309, ECON 7301, and ECON 7302 (with no grades below 'C') to be eligible to take the macroeconomics and microeconomics qualifying exams. Students must maintain at least a 3.00 average in all core courses (with no grades below 'C') to be eligible for the econometrics qualifying exam and to proceed toward the dissertation stage.

In order to assure that the student progresses satisfactorily, each student is required to consult with their advisor prior to registration each semester. Initially, the Director of Graduate Studies (DGS) of the Economics Program will serve as the advisor for students. Prior to the end of year three in the program students should find a dissertation chair, who will then serve as the student's academic advisor.

For research area certification, the student must select two research areas and advise the DGS of the selection. The DGS will, in conjunction with the Economics Curriculum Committee, advise the student of the appropriate certification requirements. The general guidelines for certification consist of an average of B+ or better in two courses within each area. No more than one of these courses may be a directed study. Directed studies may not be substituted for existing courses within an area. Examples of field areas include, but are not limited to: labor economics, public economics, economics of education, econometrics, applied microeconomics, applied econometrics, macroeconomics, game theory, industrial organization, and urban and regional economics. Research areas must be declared and completed no later than at the end of the third year of study.

By the end of a PhD student's seventh semester in the program, including semesters spent pursuing a master's degree in economics at UT Dallas, the student must present a seminar or 'brown-bag' hosted by the Economics Program at UT Dallas on original research, usually conducted under the supervision of the student's advisor. Subsequent to the presentation, the student's advisor will determine whether the research is sufficiently developed to recommend continued funding. The brown-bag requirement is waived for students successfully defending their dissertation proposal prior to the completion of their seventh semester.

By the end of their eighth semester, students should have completed their dissertation proposal. Students must receive a passing grade on the proposal from the members of their dissertation committee. In addition to the brown-bag seminar and proposal, students preparing for the job market are expected to present a job-talk seminar during the corresponding fall semester. The job-talk seminar requirement may be waived at the dissertation advisor's discretion.

The submission of an approved dissertation will complete the course of study for the PhD degree in Economics. The procedure for approval of the dissertation is outlined in the UT Dallas Graduate Catalog.
Master of Science in Economics

36 semester credit hours minimum

Program Faculty

Professors: Daniel G. Arce, Kurt J. Beron, Dong Li, Donggyu Sul

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Assistant Professors: Anne Burton, Jonas Hedlund, Maria (Camila) Morales

Professor Emeritus: Todd Sandler

Mission

The mission of the Master of Science in Economics is to provide excellent graduate-level education in economics, with an emphasis on the development of theoretical understanding of economic phenomena, quantitative skills that can be applied to economic problems, and critical thinking to understand how best to apply economic theory and quantitative skills to real-world problems faced by firms and/or the government. Graduates of the Economics program will have an educational background that is conducive to employment in market analysis, data analysis, banking or financial institutions, insurance, consulting, corporate strategic planning, real estate, journalism, management, marketing, labor arbitration, regulation, environmental and urban and regional planning, and quantitative analysis. Graduates may also choose to undertake further studies in PhD programs in Economics, Political Economy, and Political Science, as well as additional studies in business or law.

Facilities

Students have access to the computing facilities in the School of Economic, Political and Policy Sciences and the University's computer labs. The school has four computing laboratories which house 24-30 computers that are network linked and equipped with major social science software packages, including EViews, R, RATS, SPSS, and Stata. A computerized geographic information system, the LexisNexis database, and Westlaw are also available for student use. The University's computer labs provide personal computers and UNIX workstations.

Admissions Requirement

The University's general admission requirements are discussed on the Graduate Admission page.

The master's program in Economics seeks applications from students with a baccalaureate degree from an institution of higher education. A 3.0 undergraduate grade point average (on a 4.0 point scale), and a verbal score of 145 and a quantitative score of 150 on the Graduate Records Examination (GRE) or Graduate Management Admissions Test (GMAT) test score. Standardized test scores are only one of the factors taken into account in determining admission. Students should also submit all transcripts, three letters of recommendation, and a one-page essay outlining the applicant's background, education and professional objectives.
Prerequisites
For the Master of Science in Economics, students with a Bachelor of Science in Economics and courses in calculus and matrix or linear algebra will have the necessary foundation in economics, statistics, and mathematics. Students who lack this foundation should complete the following undergraduate courses at UT Dallas or their equivalents at another institution: ECON 3310 Intermediate Microeconomic Theory, ECON 3311 Intermediate Macroeconomic Theory, ECON 4351 Mathematical Economics, ECON 4355 Econometrics, and EPPS 2302 Methods of Quantitative Analysis in the Social and Policy Sciences, MATH 1325 Applied Calculus I, MATH 1326 Applied Calculus II, and MATH 2333 Matrices, Vectors, and Their Application in order to begin the program.

Degree Requirements
The University's general degree requirements are discussed on the Graduate Policies and Procedures page.

Students seeking a Master of Science in Economics degree must complete 36 semester credit semester credit hours of work in the program. The program has three components: 12 semester credit hours (four courses) of Required Core Courses (listed below), 9 semester credit hours of Economics Electives and 15 semester credit hours of Other Electives. Students must consult with the Director of Graduate Studies of the Economics Program each semester in order to determine the approved Economics Electives and Other Electives each semester. Students must achieve at least a 3.0 grade point average in the required courses and an overall grade point average of 3.0 to graduate.

Major Required Core Courses in Economics: 12 semester credit hours
ECON 5321 Microeconomic Theory for Applications
ECON 5322 Macroeconomic Theory for Applications
ECON 6305 Mathematical Economics
ECON 6306 Applied Econometrics

Advising note: If the student intends to enter the PhD program in Economics upon completion of the MS, then he or she should consider taking ECON 6301 Microeconomics Theory I instead of ECON 5321 and ECON 6302 Macroeconomics Theory I instead of ECON 5322.

Economics Elective Courses: 9 semester credit hours
Approved ECON courses numbered 5000 and above.

Other Elective Courses: 15 semester credit hours
Approved ECON courses numbered 5000 and above or approved graduate courses from other programs.

Advising note: If the student intends to enter the PhD program in Economics upon completion of the MS
then he or she should consider taking ECON 7301 Microeconomics Theory II and ECON 7302 Macroeconomics Theory II as electives.

Graduate Certificate in International Banking and Monetary Systems

15 semester credit hours

The Graduate Certificate in International Banking and Monetary Systems will teach students both econometric and machine learning methodologies with applications for monetary economics, forecasting, and macroeconomic aspects of banking.

This certificate program focuses on the systematic study of mathematical and statistical analysis of economic phenomena and problems. Includes instruction in economic statistics, optimization theory, cost/benefit analysis, price theory, economic modeling, and economic forecasting and evaluation.

Faculty

Admission Requirements

Undergraduate degree with some statistical and/or econometric coursework. Evidence of proficiency with statistical software packages. Some familiarity with basic computer programming.

The Graduate Certificate in International Banking and Monetary Systems represents a portion of the MS in Economics program's focus on macroeconomics and international monetary economics. However, the certificate may be open to degree-seeking as well as non-degree-seeking students who meet the qualifications.

Coursework

Required Courses

- **ECON 5322** Macroeconomic Theory for Applications
- **ECON 5303** Forecasting for Economics and Business
- **ECON 6305** Mathematical Economics
- **ECON 6306** Applied Econometrics
- **ECON 6357** Monetary Economics and International Banking

1. On a contingency basis, or upon availability, ECON 5322 may be substituted by ECON 6356 or PPPE 6368.