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, Todd Sandler, Donggyu Sul

Associate Professors: Seth Giertz, Xin (Sherry) Li, Susan Williams McElroy, Kevin Siqueira, Victor Valcarcel

Assistant Professors: Rodney Andrews, Monica Deza, Asli Leblebicioglu

Mission

The mission of the PhD in Economics is to provide a cutting-edge education in economic theory, the development of a rigorous toolkit of mathematical and econometric techniques, and in various research areas in economics. This education allows students to think critically about how to approach the analysis of 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, and a one-page essay outlining the applicant's background, reasons for choosing UT Dallas, prior educational experiences, and personal objectives.

Prerequisites

Students who lack the necessary background to start the program are advised to take courses at the School of Economic, Political and Policy Sciences to strengthen their preparation, but they will not receive credit towards their PhD program. The following courses may be used to gain 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. It is also necessary to have had 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 seeking the PhD in Economics must complete 75 graduate semester credit hours. In addition, they must (i) complete core courses with an average GPA of 3.00; (ii) pass comprehensive exams in micro- and macroeconomic theory and in econometrics (although the econometrics exam will be waived for students who complete each of the required econometrics courses with an average grade of A- or better); (iii) submit an acceptable research paper by the beginning of the fourth year of study, (iv) be certified in two research areas within the science of Economics; and (v) submit an approved dissertation. The following paragraphs elaborate on these requirements.

Students are required to complete the following core courses:

- ECON 6301 Microeconomics Theory I
- ECON 7301 Microeconomics Theory II
- ECON 7303 Microeconomics Theory III
- ECON 6302 Macroeconomics Theory I
- ECON 7302 Macroeconomics Theory II
In addition, they are required to register for the following course at the appropriate stages of their study:

- **ECON 8V01** Dissertation Seminar

In order to assure that the student progresses satisfactorily, each student is required to consult with the Director of Graduate Studies (DGS) of Economics Programs prior to registration in every semester.

For research area certification, the student must select the two research areas, preferably during the second year of study (no later than the third), and advise the DGS of the selection. The DGS will, in conjunction with the Economics Curriculum Committee, advise the student regarding the appropriate certification requirements. The general guidelines for certification consist of an average of B+ or better in two courses within each area. At most, one of these courses can 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, experimental/behavioral economics, economics of education, econometrics, applied microeconomics, applied econometrics, macroeconomics, game theory, industrial organizations, and geospatial information science.

By the end of a PhD student's 8th semester within the program, including those semesters spent in pursuing a master's degree in economics at UTD, the student must present an economics seminar at UTD on original work that has been supervised by the student's advisor. Subsequent to the presentation, attending faculty will determine whether the research is sufficiently developed to merit continued funding. This requirement is waived for any student that successfully defends their dissertation proposal prior to the completion of the student's 8th semester.

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, Todd Sandler, Donggyu Sul

**Associate Professors:** Seth Giertz, Xin (Sherry) Li, Susan Williams McElroy, Kevin Siqueira, Victor Valcarcel

**Assistant Professors:** Rodney Andrews, Monica Deza, Asli Leblebicioglu
Mission

The mission of the Master of Science in Applied 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 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 Applications 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 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** Macroeconomic Theory II as electives.
Graduate Certificate in Economic and Demographic Data Analysis: 15 semester credit hours

The Certificate in Economic and Demographic Data Analysis may be acquired by graduate degree-seeking and non-degree seeking students. For the certificate, students must complete 15 graduate semester credit hours (5 courses).

Faculty

Professors: Kurt J. Beron, Patrick T. Brandt, Harold D. Clarke

Associate Professors: Simon M. Fass, Dohyeong Kim

Assistant Professor: Vito D’Orazio

Clinical Assistant Professor: Timothy M. Bray

Students are required to take:

EPPS 7313 Descriptive and Inferential Statistics
EPPS 7316 Regression and Multivariate Analysis

Students must choose at least three courses from the following:

EPPS 6324 Data Management for Social Science Research
EPPS 7318 Structural Equation and Multilevel (Hierarchical) Modeling
EPPS 7344 Categorical and Limited Dependent Variables
EPPS 7368 Spatial Epidemiology
EPPS 7370 Time Series Analysis I
EPPS 7371 Time Series Analysis II
EPPS 7386 Survey Research
EPPS 7390 Bayesian Analysis for Social and Behavioral Sciences
EPPS 7V81 Special Topics in Social Science Research Methodology

Other courses as approved by the PPPE Program Head or Director of Graduate Studies

However, students should check with the Director of the Certificate Program or the program office for details as to the list of acceptable courses.
Students seeking the certificate who do not plan to seek a degree should (1) submit an application and (2) an undergraduate transcript. No GRE score is required. Note: (a) up to 15 semester credit hours of coursework taken as a non-degree seeking student can be applied later to a graduate degree; (b) currently enrolled students may use up to 9 semester credit hours of courses required for their degree for the certificate. Non-degree seeking students interested in continuing their graduate education must formally apply to the University and their program of interest to be considered for admission.

Courses for the certificate must be completed within a 3-year period with a minimum cumulative GPA of 3.0.