

# APPLIED ECONOMICS DEGREE (MS)

Now more than ever, businesses and other organizations require graduates who are skilled in quantitative and analytical methods, and who can use evidence based methods to inform decisions and policy. The MS Applied Economics degree is a professional Masters program that will prepare graduates for careers in a variety of fields including business, government, consulting, analytics, and research. The program has a strong foundation in applied econometrics (data analysis), data management, the use of statistical software, and economic modeling that will provide excellent training for employment as an economist in any type of setting.

Students can tailor their course choices to emphasize three or four of these topics:

1. Health Economics
2. Environmental Economics
3. Monetary Economics
4. International Macroeconomics

## Program Coordinators

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## Department

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The program will be a 12-month program that takes place in the fall, spring, and summer semesters. It consists of 32 credits: 20 credits of core courses, nine credits of electives, and three credits of thesis work. Full-time students will take 13 credits of courses in each of the fall and spring semesters and six credits during the summer. The program can also be taken on a part-time basis.

### Additional Admission Requirements:

- 1 Graduate Record Examination (GRE) Scores
2. Two letters of recommendation (in English) from individuals who can speak to the applicant's academic record
3. A Test of English as a Foreign Language (TOEFL) paper score of at least 550, a computer score of at least 213, an Internet score of at least 79, or an IELTS score of 6.
4. This degree is a limited enrollment cohort program. A departmental committee evaluates all applications to determine which applicants will be admitted.
5. Exceptions to the admission requirements may be made on a case-by-case basis.
6. Due to increasing enrollments, admission may be limited despite fulfillment of the aforementioned entrance requirements.

## Degree in Applied Economics

- Applied Economics MS (<http://uww-public.courseleaf.com/graduate/business-economics/ms-applied-economics/applied-economics-ms>)

### Courses

#### ECON 690 WORKSHOP *Repeatable* 1-3 Units

Variable topics. Group activity oriented presentations emphasizing "hands on" and participatory instructional techniques.

PREREQ: GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A. ACCOUNTING.

#### ECON 691 TRAVEL STUDY 3 Units

Variable topics. Faculty-led courses abroad.

#### ECON 694 SEMINAR IN ECONOMICS *Repeatable* 1-3 Units

Variable topics. Group activity. An advanced course of study in a defined subject matter area emphasizing a small group in intense study with a faculty member.

Prereq: Consent of Instructor.

PREREQ: GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A. ACCOUNTING.

#### ECON 696 SPECIAL STUDIES *Repeatable* 1-3 Units

Variable topics. Group activity. Not offered regularly in the curriculum but offered on topics selected on the basis of timeliness, need, and interest, and generally in the format of regularly scheduled Catalog offerings.

PREREQ: GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A. ACCOUNTING.

#### ECON 703 STATISTICS FOUNDATIONS 2 Units

Introduction to descriptive statistics and basic statistical methods as applied to scientific problem solving and decision making. Topics covered include: Descriptive statistics, elementary probability theory, theoretical distributions, inferences about a single population (sampling distributions, estimation, tests of hypothesis), and regression analysis.

PREREQ: GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A. ACCOUNTING.

#### ECON 704 ECONOMICS FOUNDATIONS 2 Units

A study of micro and macro economic tools of analysis. The functioning of a market economy in product and factor markets under alternative market structures. National income, fiscal policy, and the role of the money supply.

PREREQ: GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A. ACCOUNTING.

#### ECON 731 MICROECONOMIC THEORY I 3 Units

This course presents advanced topics in microeconomic theory, including consumer behavior, the firm and market structure, equilibrium conditions, and welfare economics. Students will learn important techniques and theories including multivariate optimization, fundamentals of general equilibrium theory and game theory, which form the building blocks of modern microeconomics analysis.

PREREQ: ENTRY INTO MS APPLIED ECONOMICS PROGRAM

#### ECON 732 MACROECONOMIC THEORY 3 Units

Macroeconomics is concerned with the behavior of aggregate economic variables such as GDP or unemployment and the relationship between these variables. This course provides a rigorous introduction to the techniques and models required for these analyses, which form the building blocks of modern macroeconomics as practiced by researchers today.

PREREQ: ENTRY INTO MS APPLIED ECONOMICS PROGRAM

**ECON 733 ECONOMETRICS I 3 Units**

Econometrics I will focus on the estimation of models using various computer programs and understanding these models from an intuitive perspective. It introduces students to Regression methodology, focusing on assumptions of the framework, correcting for violations of the assumptions and examines the possibility of determining causality with observational data.

PREREQ: ENTRY INTO MS ECONOMICS PROGRAM

**ECON 736 BUSINESS CONDITIONS ANALYSIS 2 Units**

A study of the macroeconomic structure and operations of the economic system. Analysis of fluctuations in national income, output, employment, prices and exchange rates and the implication of such changes for business decisions. Evaluation of the influence of monetary policy, fiscal policies, and other macroeconomic events on economic activity. Assessment of the various approaches and methodologies available for forecasting business conditions.

PREREQ: ECON 704 OR ECON 202 OR EQUIVALENT, GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A.

ACCOUNTING

**ECON 737 MANAGERIAL ECONOMICS 2 Units**

Applications of microeconomic theory to problems of formulating managerial decisions. Emphasis on economics as a science that facilitates decision making. Topics considered include optimization techniques, risk analysis and estimation of demand and costs of production, market structures and pricing practice, and antitrust economics. Integrates theory and practice.

PREREQ: ECON 703 OR ECON 245 OR EQUIVALENT AND ECON 704 OR ECON 201 OR EQUIVALENT

**ECON 738 QUANTITATIVE METHODS IN ECONOMICS 3 Units**

This course will provide students with the mathematical methods and tools used in modern economic analysis. Linear algebra, multivariable calculus, and optimization theory are the main topics of the course and applications to simple economic models will be emphasized.

PREREQ: ENTRY INTO MS APPLIED ECONOMICS PROGRAM

**ECON 740 RESEARCH METHODS AND DATA HANDLING 3 Units**

This course provides a introduction for students on how to conduct empirical and applied economic research. It focuses on the basic approaches of research design and methodology within the Economics discipline. It introduces student to data handling and management, and to a variety of software packages used in economic research.

PREREQ: ECON 738 AND ECON 733

**ECON 741 ADVANCED TOPICS IN ECONOMICS 3 Units**

This course introduces students to more advanced field topics in both micro and macroeconomics. Topics are introduced by faculty working on their research; students will explore current research in areas such as: development economics, industrial organization, game theory and managerial economics, health economics, international finance, monetary economics, public economics, environmental economics, labor, health and urban economics.

PREREQ: ECON 738 AND ECON 731

**ECON 742 ADVANCED TOPICS IN MACROECONOMICS 3 Units**

This course covers advanced topics in macroeconomics. Its purpose is to expose students to recent developments in the study of business cycles, and the effect and conduct of macroeconomic policies in open economies.

PREREQ: ECON 732

**ECON 743 ECONOMETRICS II 3 Units**

Econometrics II introduces students to advanced techniques in modeling. In the course, students will study applied methods for model selection, implementation, and inference for cross sectional, time series, and panel data. The major emphasis will be on understanding these models from an intuitive perspective and estimating these using computer programs.

PREREQ: ECON 733 AND ECON 738

**ECON 745 ECONOMICS OF HEALTH CARE 3 Units**

Economics of Health Care is concerned with the provision and distribution of health care across the country and the allocation of resources within the health care sector of the economy. Various measures will be examined to establish the impact of health care on individual, national, and international economic policy concerns.

PREREQ: ENTRY INTO MS APPLIED ECONOMICS PROGRAM

**ECON 747 GAME THEORY 3 Units**

Game Theory provides a formal language for the description of games and offers a certain amount of guidance on their solution, i.e., a prediction or a rationalization of their outcome. This course emphasizes tools, techniques, and application of non-cooperative game theory. The course is devoted to study different types of games, including static games, dynamic games, repeated games, and Bayesian games.

PREREQ: ECON 731

**ECON 749 DEVELOPMENT ECONOMICS 3 Units**

This course will give students an outlook into the field of Development Economics. Topics covered include role of credit markets, agriculture, health and education, property rights and institutions in growth and development. On the empirical side, we will examine econometric techniques such as panel data, instrumental variables and randomized experiments, used in the field to establish causal relationships.

PREREQ: ECON 738 AND ECON 731

**ECON 751 ECONOMICS OF REGULATION 3 Units**

The rationale for government regulation and intervention in different situations. Antitrust policy. Several different models of regulation. The economic effects of regulation on public utilities, transportation, pollution control, and protection of consumers.

PREREQ: ECON 704 OR ECON 201 OR EQUIVALENT

**ECON 752 RESOURCE ECONOMICS 3 Units**

Resource Economics provides an in-depth examination into the field of environmental and natural resource economics. It is designed to provide insight into economic aspects of a wide range of environmental issues such as optimal fishery and forestry management, energy provision, population dynamics, air and water pollution, climate change, and sustainability.

PREREQ: ECON 738 AND ECON 731 OR ECON 703, ECON 704 AND ECON 737 OR EQUIVALENT

**ECON 757 INDUSTRIAL ORGANIZATION 3 Units**

Industrial Organization is the study of imperfect competition. We will explain why imperfect competition is pervasive, discuss how to describe imperfectly competitive industries, consider alternative strategies in such industries, evaluate the implications for profitability and welfare, and assess the impacts of public policies on firm strategy and industry performance.

PREREQ: ENTRY INTO MS APPLIED ECONOMICS PROGRAM

**ECON 758 INTERNATIONAL ECONOMICS 3 Units**

A study of international trade and finance issues; multinational enterprises, international investments, currency problems, and balance of payments issues. Analyzes the structure and scope of world trade and international financial markets in developed and developing countries.

PREREQ: ECON 704 OR ECON 202 AND ECON 201 OR EQUIVALENT, GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A. ACCOUNTING

**ECON 760 ECONOMETRIC THEORY 3 Units**

This course is intended for those students who want to develop a greater understanding of the underlying theory utilized in the first two econometric classes in our program. Key topics include investigating distributional properties and asymptotic theory.

PREREQ: ECON 733 AND ECON 743 WITH A B- OR HIGHER

**ECON 761 TIME SERIES ECONOMETRICS AND FORECASTING 3 Units**

Techniques for operational business forecasting with emphasis on time-series methods. Topics covered include single and multiequation regression models; trend analysis; smoothing techniques, decomposition methods; Box-Jenkins time series methods; evaluation of forecasts; and the integration of forecasting in the decision making process.

PREREQ: ECON 733 OR WITH CONSENT OF THE INSTRUCTOR.

**ECON 773 INTERNATIONAL MACROECONOMICS 3 Units**

This course focuses on macroeconomic issues and policies in open economies and surveys selected current research topics in the field. Topics treated include the intertemporal approach to the current account, international financial integration, international and domestic asset markets, sovereign debt crises, business cycle synchronization and transmission of shocks.

PREREQ: ECON 732

**ECON 775 MONETARY ECONOMICS 3 Units**

This course focuses on monetary theory and policy. It surveys selected current research topics in the field. Topics studied include alternative models of money, the transmission mechanism of monetary policy, the persistence of inflation, and conduct of monetary policy in a New Keynesian environment.

PREREQ: ECON 738; ECON 732; ECON 733

**ECON 784 SEMINAR TOPICS IN ECONOMICS *Repeatable* 1 Units**

This course is a graduate-level seminar which introduces students to current research at the frontier of economics. By bringing in guest speakers in the fields of micro- and macroeconomics, the seminar exposes students to different types of research questions in the field of economics, as well as the different techniques researchers use to approach answering those questions. Understanding the current frontier of research and ways to ask and answer questions at this frontier will prepare you to work on your own original research in the field. Certain seminars will also be used to emphasize the importance of and best practices in good written and oral communication.

PREREQ: ENTRY INTO MS APPLIED ECONOMICS PROGRAM

**ECON 789 READINGS AND RESEARCH IN ECONOMICS 3 Units**

Directed readings in current research and literature selected to apply to a contemporary economic field, problem or issue.

PREREQ: GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A. ACCOUNTING.

**ECON 790 WORKSHOP *Repeatable* 1-6 Units**

Variable topics. Group activity oriented presentations emphasizing "hands on" and participatory instructional techniques.

PREREQ: GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A. ACCOUNTING.

**ECON 794 SEMINAR *Repeatable* 1-3 Units**

Variable topics. Group activity. An advanced course of study in a defined subject matter area emphasizing a small group in intense study with a faculty member.

**ECON 796 SPECIAL STUDIES 1-3 Units**

Variable topics. Group activity. Not offered regularly in the curriculum but offered on topics selected on the basis of timeliness, need, and interest, and generally in the format of regularly scheduled Catalog offerings.

**ECON 798 INDIVIDUAL STUDIES *Repeatable* 1-3 Units**

Study of a selected topic or topics under the direction of a faculty member.

PREREQ: GRADUATE STUDENTS MUST BE ADMITTED TO THE M.B.A. OR M.P.A. ACCOUNTING.

**ECON 799 THESIS 1-6 Units**

Students must complete a Thesis Proposal Form in the Graduate Studies Office before registering for this course. Prereq: 28 credits in undergraduate and graduate economics courses. Some of these may be taken concurrently with approval of advisor.

PREREQ: GRADUATE STANDING