DEPARTMENT OF ECONOMICS

David Black, Interim Chair, Advisor

Early Admission to Master's Degree Program in Economics

A special opportunity exists for undergraduate students at the University of Toledo interested in pursuing a Master's of Arts Degree in Economics. Being evaluated by the same criteria as graduate students, undergraduate students have the opportunity to apply advanced-level work to their undergraduate degree requirements while, at the same time, securing a significant "head start" toward satisfying the requirements for a master's degree in Economics. Qualifying undergraduate students are allowed to apply particular courses (and associated credit hours) towards both their undergraduate and graduate degree requirements.

If accepted into this program, undergraduate students may register for up to 3 graduate-level Economics courses (9 credit hours). Because the M.A. degree in Economics requires 30 credit hours of graduate-level work, students who complete 9 of those hours as an undergraduate student have to complete only 21 additional credit hours as a graduate student to receive their master's degree.

Undergraduate students with a declared major in Economics and a cumulative GPA in Economics courses of 3.3 or higher are eligible for this program. Students accepted into this program must consult and receive prior approval from the Department of Economics' graduate director as to which courses at the University of Toledo may be applied for dual credit toward both undergraduate and graduate degree requirements. Students interested in this program are encouraged to speak with the Department of Economics' Chair, graduate director, or undergraduate advisor for additional information and the application form for this program.

Degrees Offered

- B.A. in Economics (https://catalog.utoledo.edu/undergraduate/arts-letters/economics/ba-economics/)
- Advanced Economics Certificate (https://catalog.utoledo.edu/undergraduate/arts-letters/economics/advanced-economics-certificate/)
- Advanced Quantitative Economics Certificate (https://catalog.utoledo.edu/undergraduate/arts-letters/economics/advanced-quantitative-economics-certificate/)
- Environmental Economics Certificate (https://catalog.utoledo.edu/undergraduate/arts-letters/economics/environmental-economics-certificate/)
- Public Economics Certificate (https://catalog.utoledo.edu/undergraduate/arts-letters/economics/public-economics-certificate/)
- Minor in Economics (https://catalog.utoledo.edu/undergraduate/arts-letters/economics/minor-economics/)
- Minor in Environmental Economics (https://catalog.utoledo.edu/undergraduate/arts-letters/economics/minor-environmental-economics/)
- Minor in Public Economics (https://catalog.utoledo.edu/undergraduate/arts-letters/economics/minor-public-economics/)

Qualified juniors and seniors are invited to work for the citation "honors in economics."

a. **Admission:** The Honors Program is open to all undergraduate economics majors whether or not they are enrolled in College Honors. Interested students should speak with the department undergraduate advisor. Ordinarily, the student must have a minimum cumulative GPA of 3.0.
b. **Requirements:** To be awarded departmental honors in economics, the student must take nine of the 30-hour major requirements in the honors and honors recognition courses offered by the department. Every honors student must complete ECON 4960: Senior Honors Thesis and then two other honors courses. Every regularly scheduled 3000 or 4000-level course can be given honors recognition by completing an honors contract with the course instructor detailing the readings and research in addition to the normal requirements of the course. Moreover, any student accepted into the department's early admission program and taking up to two 5000 level economics courses will have those 5000 level courses given honors recognition. To remain in the program, the student ordinarily must maintain a minimum GPA of 3.3 in the major.

DANN 2000 Proseminar in Data Analytics I
[1 credit hour]
Students are introduced to the academic and professional nature of the data analytics major. Topics covered include professional socialization, honor theses, portfolio construction, preparation for graduate studies, and career development.
Term Offered: Spring, Fall

DANN 4000 Proseminar in Data Analytics II
[2 credit hours]
Discussion among faculty and students in the data analytics major with a special focus on the development of a professional portfolio for graduate work or career.
Prerequisites: DANN 2000 with a minimum grade of D-
Term Offered: Spring, Fall

DANN 4940 Data Analytics Internship
[1-4 credit hours]
A prearranged work-study experiential learning course where students gain practical experience applying their data analytics knowledge with a specific firm, government agency, or nonprofit group.
Prerequisites: DANN 2000 (may be taken concurrently) with a minimum grade of D- and (PSY 2100 (may be taken concurrently) with a minimum grade of D- or SOC 3290 (may be taken concurrently) with a minimum grade of D- or GEPL 4420 (may be taken concurrently) with a minimum grade of D- or MATH 2600 (may be taken concurrently) with a minimum grade of D-) and (ECON 2810 (may be taken concurrently) with a minimum grade of D- or GEPL 4110 (may be taken concurrently) with a minimum grade of D-)
Term Offered: Spring, Summer, Fall

ECON 1010 Introduction To Economic Issues
[3 credit hours]
Basic concepts and theory applications to major economic problems and controversies. Designed primarily to meet requirements of students not planning to take upper level economics courses. (not for major credit)
Term Offered: Spring, Summer, Fall
Core Social Sciences, OT36 Social Science

ECON 1150 Principles Of Macroeconomics
[3 credit hours]
Explaining the level and the growth of economic activity, its fluctuations and ways of achieving greater stability, including the roles of money, banking and international finance.
Term Offered: Spring, Summer, Fall
Core Social Sciences, OT36 Social Science

ECON 1155 Principles of Macroeconomics with Data Applications
[3 credit hours]
Theoretical explanations on the level and the growth of economic activity, its fluctuations and ways of achieving greater economic stability – complimented by introductory data analysis examining the veracity of predictions by theoretic models. No prior experience using data is necessary for successful completion of this course.
Term Offered: Spring, Summer, Fall
Core Social Sciences

ECON 1200 Principles Of Microeconomics
[3 credit hours]
Theories of consumer behavior; determination of input and output; prices and quantities in factor and product markets; analysis of international trade and policy; applications include labor markets and income distribution.
Term Offered: Spring, Summer, Fall
Core Social Sciences, OT36 Social Science

ECON 2400 The American Economy In The Twentieth Century
[3 credit hours]
American economic growth in the recent past. Evolution of governmental roles, development of labor markets with respect to race and sex, effects of wars and depressions. Status of American competitiveness.

ECON 2500 Topics In International Economics
[3 credit hours]
Why nations trade; comparative advantage and gains from trade; free trade versus protectionism; free versus "fair" trade; balance of payments problems.

ECON 2810 Introduction to Econometrics
[3 credit hours]
Introduction to econometrics with an emphasis on the intuitive understanding and practical applications of the basic tools of regression analysis. Course covers hypothesis testing, single and multiple regression equations, and the problems and possible solutions to data that are associated with multicollinearity, autocorrelation and heteroskedasticity.
Prerequisites: MATH 2600 (may be taken concurrently) with a minimum grade of D- or MATH 3610 (may be taken concurrently) with a minimum grade of D- or BUAD 2060 (may be taken concurrently) with a minimum grade of D- or PSY 2100 (may be taken concurrently) with a minimum grade of D- or SOC 3290 (may be taken concurrently) with a minimum grade of D- or GEPL 4420 (may be taken concurrently) with a minimum grade of D-
Term Offered: Spring, Fall

ECON 3030 Consumer Economics
[3 credit hours]
Economic role of the consumer, theory of choice-making - rational purchasing of food, housing, health care, transportation, insurance, credit, budgeting, investing and tax returns.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-

ECON 3050 Economics Of Gender
[3 credit hours]
Analysis of labor market outcomes and income distribution characteristics resulting from gender differences; gender-related economic outcomes: the "feminization of poverty," persistent male-female wage differential, expanding proportions of female-headed and same sex households.
Term Offered: Spring, Summer, Fall
Multicultural US Diversity

ECON 3070 Economics And Law
[3 credit hours]
Methodologies of Law and Economics; Legal institutions; Economic Theory of Property; Property Rights; Contract Theory; Economic Theory of Torts and Tort Law, Common Law Process; Economics of Crime and Punishment.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-

ECON 3080 Economics Of Crime
[3 credit hours]
Study of crime as an economic activity; costs of crime to the community; economic approach to crime reduction.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-
Term Offered: Spring, Fall

ECON 3120 Topics In Monetary And Financial Economics
[3 credit hours]
Current issues in money, banking and finance; interest rate theory; international money and banking; monetary policy and modeling monetary economies.
Prerequisites: ECON 1150 with a minimum grade of D-
Term Offered: Fall

ECON 3150 Intermediate Macroeconomic Theory
[3 credit hours]
National income accounting; theory of income determination; causal relationships; analysis of consumption, investment, government and foreign demand functions; integration of theories of income, output, money and interest.
Prerequisites: ECON 1150 with a minimum grade of D-
Term Offered: Spring, Fall

ECON 3200 Intermediate Micro-Economic Theory
[3 credit hours]
Consumer theory, utility and indifference curve analysis, theory of the firm, industry pricing in perfect and imperfect competition and distribution theory.
Prerequisites: ECON 1200 with a minimum grade of D-
Term Offered: Spring, Summer, Fall

ECON 3240 Environmental Economics
[3 credit hours]
Economic analysis of the causes of enironmental problems; Examination of various economic policies for addressing current environmental issues such as pollution control policies and optimal use of resources.
Term Offered: Spring, Summer, Fall

ECON 3250 Economics Of Sports
[3 credit hours]
This course will survey the theoretic and applied economic issues within the world of professional and amateur sports, focusing on industrial organization, labor economics and public finance.
Prerequisites: ECON 1200 with a minimum grade of D- or ECON 1150 with a minimum grade of D-
Term Offered: Spring, Summer, Fall

ECON 3260 The Economics of Climate Change
[3 credit hours]
Climate change can be viewed as a fundamentally economic problem. However, climate change has a unique set of attributes that make standard economic analysis difficult to apply. It is a global problem requiring unprecedented international cooperation. Economists view climate change as a risk that creates uncertainty about the future. Students will learn how people value alternative reductions in climate risk. An understating of this trade-off is necessary to help design more cost-effective climate change policy.

ECON 3270 Natural Resource Economics - WAC
[3 credit hours]
Economic analysis of natural resource conservation and use, considering the objectives of efficiency and sustainability. Topics include energy, minerals, marine resources, land and agriculture, outdoor recreation, biodiversity and wildlife management.
Term Offered: Spring, Summer, Fall

ECON 3300 BENEFIT-COST ANALYSIS
[3 credit hours]
The study of the evaluation of competing public policy alternatives and projects to more efficiently allocate society's resources. Applications include transportation, public health, criminal justice, education, and the environment.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D- or ECON 3240 with a minimum grade of D- or ECON 3270 with a minimum grade of D-
Term Offered: Spring, Fall

ECON 3410 World Economic History
[3 credit hours]
Study of economic growth throughout the world, particularly in Europe, Asia, Africa and Latin America. Analysis of economic institutions, technological change, industrialization and living standards.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-

ECON 3500 Comparative Economic Systems
[3 credit hours]
Theory and ideology of market, socialist and mixed economic systems. Case study of the economies of U.S., Russia, China and India.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-
Term Offered: Spring, Summer
Multicultural Non-US Diversity

ECON 3600 Urban Economics
[3 credit hours]
Analysis bearing on intermetropolitan and intrametropolitan growth processes.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-

ECON 3750 Survey of Health Economics
[3 credit hours]
Introduction to the economic analysis of health and health care. Topics include medical and allied manpower, hospitals, drugs and economic evaluation of health programs.
Prerequisites: ECON 1200 with a minimum grade of D- or ECON 1150 with a minimum grade of D-
Term Offered: Spring, Summer, Fall

ECON 3810 Applied Econometrics
[3 credit hours]
Topics emphasize applications of a wide range of statistical approaches to time-series, cross-sectional, panel, and other types of data. Included are mirco-econometric topics such as panel data models, qualitative choice models, hazard models and others. The time series macro-economic topics include model solidarity, cointegration, error correction mechanisms, ARCH and GARCH models, economic forcasting, and others.
Prerequisites: ECON 2810 with a minimum grade of D-
Term Offered: Spring, Fall

ECON 3900 Undergraduate Seminar
[1-4 credit hours]
Small group study of special topics initiated either by student or a faculty member.
Term Offered: Spring, Fall

ECON 3910 Honors Research
[1-4 credit hours]
Study of special topics initiated either by student or a faculty member.
Term Offered: Spring, Fall

ECON 3920 Honors Reading
[1-4 credit hours]
Study of special topics initiated either by student or a faculty member.
Term Offered: Spring, Fall

ECON 3980 Current Economic Issues
[3 credit hours]
Course content varies as changes in the interaction between economic topics and writing assignments occur.

ECON 4050 Population Economics
[3 credit hours]
Interaction of economic changes and demographic variables; topics include birth rates, women's employment, marriage and divorce, aging and mortality, migration and overpopulation.
Prerequisites: (ECON 1150 (may be taken concurrently) with a minimum grade of D- or ECON 1200 (may be taken concurrently) with a minimum grade of D-) and ECON 2810 (may be taken concurrently) with a minimum grade of D-
Term Offered: Spring

ECON 4120 Monetary Theory
[3 credit hours]
Modern theories of financial markets, money and the theory of interest rates, money's role in general equilibrium and growth models and money's ability to cause inflation.
Prerequisites: ECON 3150 with a minimum grade of D-
Term Offered: Spring

ECON 4130 Monetary And Fiscal Policy
[3 credit hours]
Changes in the quantity of money and alternative government spending, taxation and debt policies, interrelations of fiscal and monetary policies in stabilization programs.
Prerequisites: ECON 3150 with a minimum grade of D-
Term Offered: Spring

ECON 4150 Advanced Macroeconomic Theory
[3 credit hours]
Theories of consumption and investment. Empirical estimates. Cycle and growth theory, multiplier-accelerator analysis and growth models. The theory and instruments of macroeconomic policy. Dynamic Macroeconomic Theory.
Prerequisites: ECON 3150 with a minimum grade of D-
Term Offered: Fall

ECON 4200 Advanced Microeconomic Theory
[3 credit hours]
Advanced topics in microeconomic theory, consumer behavior, the firm and market structure, distribution theory, equilibrium conditions, welfare economics.
Prerequisites: ECON 3200 with a minimum grade of D-
Term Offered: Fall

ECON 4230 Poverty And Income Distribution
[3 credit hours]
Causes and consequences of current trends in poverty and income distribution in the U.S.; analysis of policies dealing with problems in these areas.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-

ECON 4240 Applied Environmental Economics
[3 credit hours]
The economics of the environment and natural resources using applied welfare theory, benefit-cost analyses, and nonmarket valuation. Examination of economic instruments, such as marketable permits, for solving environmental problems.
Prerequisites: ECON 1200 with a minimum grade of D- or ECON 3240 with a minimum grade of D- or ECON 3270 with a minimum grade of D-
Term Offered: Spring

ECON 4250 Labor Economics
[3 credit hours]
The labor market is studied. Topics include labor force characteristics, wage determination, hours and condition of work, human capital models, unemployment, labor union structure and growth, and modern labor legislation.
Prerequisites: ECON 1200 (may be taken concurrently) with a minimum grade of D- and ECON 2810 (may be taken concurrently) with a minimum grade of D-
Term Offered: Spring

ECON 4260 Behavioral Economics
[3 credit hours]
Economic analysis of decisions made by people. Topics include decision-making under risk and uncertainty, strategic decision-making, and experimental economics.
Prerequisites: ECON 1200 (may be taken concurrently) with a minimum grade of D- and ECON 2810 (may be taken concurrently) with a minimum grade of D-
Term Offered: Spring

ECON 4280 Energy Economics
[3 credit hours]
This course explores the theoretical and empirical perspectives on the demand and supply sides of the energy markets. This course starts with an energy outlook in both domestic and global scales. Then it discusses the natural resource modelling, energy supply, and the behavioral underpinnings of the energy demand. The course continues with current and historical aspects of national and global markets for oil, natural gas, coal, electricity, nuclear power, and renewable energy..
Prerequisites: ECON 1150 with a minimum grade of D- and ECON 1200 with a minimum grade of D-
Term Offered: Spring, Summer, Fall

ECON 4300 Mathematical Economics
[3 credit hours]
Development and applications of the mathematical tools used by economists. Differential and integral calculus, linear algebra, transcendental functions and series.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-
Term Offered: Fall

ECON 4410 American Economic History
[3 credit hours]
Exploration of economic growth in America from pre-Columbian times to the present day. Analysis of economic institutions, technological change, industrialization and standards of living.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-

ECON 4510 International Economics I
[3 credit hours]
Theory of international trade; commercial policy; costs and benefits, economic integration; trade and economic growth and balance of payments problems.
Prerequisites: ECON 1150 with a minimum grade of D-
Term Offered: Spring, Summer

ECON 4550 Economic Development
[3 credit hours]
Economic problems and policies in less-developed countries, including such topics as schooling, population growth, urbanization, landholding, income distribution, capital formation and development strategies.
Prerequisites: ECON 1150 with a minimum grade of D- or ECON 1200 with a minimum grade of D-

ECON 4620 Regional Economics
[3 credit hours]
Examination of regional income estimates and social accounts, regional multipliers, diverse location theories, supplemented with techniques of regional analysis.
Prerequisites: ECON 1200 with a minimum grade of D-

ECON 4660 Public Finance Economics
[3 credit hours]
An analysis of the government sector in the economy, government expenditures, taxation and borrowing and their effects on employment, price levels and growth.
Prerequisites: ECON 1200 with a minimum grade of D-
Term Offered: Spring

ECON 4750 Health Economics
[3 credit hours]
Economic analysis of health and health services. Topics currently include medical and allied manpower, hospitals, drugs and cost-benefit analysis of selected health programs.
Prerequisites: ECON 1200 (may be taken concurrently) with a minimum grade of D- and ECON 2810 (may be taken concurrently) with a minimum grade of D-
Term Offered: Spring

ECON 4810 Econometrics Models And Methods I
[3 credit hours]
An introduction to econometric methods and their use in quantitative analysis of economic theories. Diagnostics for problems typically encountered are detailed along with techniques for correcting these problems.
Prerequisites: MATH 2600 with a minimum grade of D- or ECON 2810 with a minimum grade of D- or PSY 2100 with a minimum grade of D- or SOC 3290 with a minimum grade of D- or GEPL 4420 with a minimum grade of D-
Term Offered: Fall

ECON 4820 Econometrics Models And Methods II
[3 credit hours]
An introduction to forecasting methods for economic time-series including Bayesian methods. Both theory and application of forecasting models and methods are covered.
Prerequisites: ECON 4810 with a minimum grade of D-
Term Offered: Spring

ECON 4830 Econometrics Models And Methods III
[3 credit hours]
Econometric methods that apply to survey, spatial and cross-sectional/ time-series data along with other specialized modeling techniques are covered.
Prerequisites: ECON 4810 with a minimum grade of D-

ECON 4900 Undergraduate Research Experience
[0 credit hours]
Undergraduate students will participate in directed research or scholarship activities with faculty mentors.
Term Offered: Spring, Summer, Fall

ECON 4910 Research
[1-4 credit hours]

ECON 4920 Readings
[1-4 credit hours]

ECON 4940 Economics Internship
[1-4 credit hours]
A prearranged work-study experiential learning course where students gain practical experience applying their economic knowledge with a specific firm, government agency, or nonprofit group. The course is variable credit from 1 to 4 credits. Each academic credit hour requires 40 hours of internship work, e.g., a 3 credit ECON 4940 course requires 120 hours. ECON 4940 will be graded as “credit/ no credit”.
Prerequisites: ECON 1150 with a minimum grade of D- and ECON 1200 with a minimum grade of D- and ECON 2810 with a minimum grade of D-
Term Offered: Spring, Summer, Fall

ECON 4960 Senior Honors Thesis
[1-4 credit hours]