DEPARTMENT OF ECONOMICS

Head: T. J. Gronberg

PhD Advisor: D. Jansen

MS Advisor: L. Gan

Graduate study in economics leads to the degrees of Master of Science and Doctor of Philosophy. The graduate program develops theoretical and quantitative skills and analyzes a broad range of contemporary policy issues in order to prepare students for careers in academe, business and government.

Both MS and PhD degrees are offered. It is not necessary to have a master’s degree before beginning a doctoral program. To enter the doctoral program in economics, the student should present undergraduate credits in economics, although an undergraduate major in economics is not necessary. Additional preparation should include work in mathematics and statistics. The department has no foreign language requirement for a graduate degree in economics.

Faculty

An, Yonghong, Assistant Professor
Economics
PHD, Johns Hopkins University, 2011

Barr, Andrew C, Assistant Professor
Economics
PHD, University of Virginia, 2015

Bento, Pedro M, Assistant Professor
Economics
PHD, University of Toronto, 2013

Brown, Alexander L, Associate Professor
Economics
PHD, California Institute of Technology, 2008

Castillo, Marco, Associate Professor
Economics
PHD, University of Wisconsin - Madison, 2001

Eckel, Catherine C, Professor
Economics
PHD, University of Virginia, 1983

Edwardson, Jeffrey C, Senior Lecturer
Economics
PHD, Texas A&M University, 2000

Fragiadakis, Daniel, Assistant Professor
Economics
PHD, Stanford University, 2014

Gan, Li, Professor
Economics
PHD, University of California, Berkeley, 1998

Glass, Amy J, Associate Professor
Economics
PHD, University of Pennsylvania, 1993

Gronberg, Timothy J, Professor
Economics
PHD, Northwestern University, 1978

Hoekstra, Mark L, Associate Professor
Economics
PHD, University of Florida, 2006

Hwang, Haeshin, Professor
Economics
PHD, University of Minnesota, Twin Cities, 1976

Jansen, Dennis W, Professor
Economics
PHD, University of North Carolina at Chapel Hill, 1983

Kravsteva, Silvana S, Associate Professor
Economics
PHD, Duke University, 2009

Li, Qi, Professor
Economics
PHD, Texas A&M University, 1991

Lindo, Jason M, Associate Professor
Economics
PHD, University of California, Davis, 2009

Luco Echeverria, Fernando A, Assistant Professor
Economics
PHD, Northwestern University, 2014

Maness, Robert S, Visiting Associate Professor
Economics
PHD, Texas A&M University, 1992

Manjunath, Vikram, Assistant Professor
Economics
PHD, University of Rochester, 2011

Meckel, Katherine, Assistant Professor
Economics
PHD, Columbia University, 2015

Meer, Jonathan, Associate Professor
Economics
PHD, Stanford University, 2009

Pakhotina, Nataliya V, Lecturer
Economics
PHD, University of Florida, 2010

Petrie, Ragan, Associate Professor
Economics
PHD, University of Wisconsin - Madison, 2002

Saving, Thomas R, Distinguished Professor
Economics
PHD, University of Chicago, 1960

Schulman, Craig T, Visiting Associate Professor
Economics
PHD, Texas A&M University, 1990
Sekhposyan, Tatevik, Assistant Professor  
Economics  
PHD, University of North Carolina at Chapel Hill, 2010

Tian, Guoqiang, Professor  
Economics  
PHD, University of Minnesota, Twin Cities, 1987

Ureta, Manuelita, Associate Professor  
Economics  
PHD, University of California, Los Angeles, 1987

Varghese, Adel, Instructional Associate Professor  
Economics  
PHD, University of Pennsylvania, 1996

Velez, Rodrigo A, Associate Professor  
Economics  
PHD, University of Rochester, 2009

Zhang, Yuzhe, Associate Professor  
Economics  
PHD, University of Minnesota, Twin Cities, 2006

Zheng, Fang, Assistant Professor  
Economics  
PHD, University of California, San Diego, 2015

Zubairy, Sarah, Assistant Professor  
Economics  
PHD, Duke University, 2010

Masters
• Master of Science in Economics (http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/liberal-arts/economics/ms)

Doctoral
• Doctor of Philosophy in Economics (http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/liberal-arts/economics/phd)

Courses

ECMT 660 Mathematical Economics I  
Credits 3. 3 Lecture Hours.  
Use of selected types of mathematical tools in economic theory.

ECMT 669 Fundamental Mathematics for Economists  
Credits 2. 2 Lecture Hours.  
Mathematics of nonlinear programming; applications to micro-theoretic models of demand and production; fundamental results from matrix theory and multivariate differential calculus; systems of differential equations and stability analysis and their economic applications.

ECMT 670 Econometric Analysis of Financial Data  
Credits 3. 3 Lecture Hours.  
Predictability of asset returns, test of random walk hypothesis, the microstructure of securities markets, event analysis, the CAPM and arbitrage pricing theory, the term structure of interest rates, dynamic models of economic equilibrium and nonlinear financial models; provides an accessible combination of theory and practice.  
Prerequisites: Graduate classification; must be enrolled in the department of economics master’s program; approval of director of master’s program.

ECMT 673 Economic Analytics  
Credits 3. 3 Lecture Hours.  
Analysis of large household, corporate and financial data involving empirical modeling and SAS programming for prediction of economic decisions and outcomes; lecture, discussion and team project presentation format.  
Prerequisites: Graduate classification and enrollment in the master’s program in economics.

ECMT 674 Economic Forecasting  
Credits 3. 3 Lecture Hours.  
Empirical application of econometric techniques to prediction in economics; model building and specification; examination of various modern forecasting techniques.  
Prerequisites: Graduate classification; must be enrolled in the MS program in the department of economics; or approval of instructor.

ECMT 675 Econometrics I  
Credits 3. 3 Lecture Hours.  
Empirical distributions of economic variables; elementary discrete and continuous distributions expressing econometric hypotheses, distributions of estimators and test statistics.  
Prerequisites: MATH 151 and MATH 152 or approval of instructor.

ECMT 676 Econometrics II  
Credits 3. 3 Lecture Hours.  
Use of statistics in economic theory as device for testing hypotheses, formulation of concepts and economic forecasting; regression analysis in economics problems, heteroskedasticity, autocorrelation, distributed lags, regressions with lagged dependent variable, dummy variables and in introduction to multi-equations economics models.  
Prerequisite: ECMT 675 or equivalent.

ECMT 677 Applied Microeconometrics  
Credits 3. 3 Lecture Hours.  
Estimation methods applied to economic problems; techniques include single and simultaneous equations models; general linear model in matrix form; tests of linear restrictions; Wald, Likelihood Ratio and Lagrange Multiplier tests; seemingly unrelated regressions, simultaneous equations identification and estimation; missing observations, errors in variables and non-linear estimation in economics problems.  
Prerequisites: ECMT 675 and ECMT 676; STAT 610 or approval of instructor.

ECMT 678 Nonparametric Econometrics  
Credits 3. 3 Lecture Hours.  
Continuation of ECMT 677. Estimation methods applied to economic problems; techniques include qualitative limited dependent variables; pooled time-series and cross-section data; instrumental variables in economics problems. May repeated for credit.  
Prerequisite: ECMT 677.

ECMT 679 Time Series Econometrics  
Credits 3. 3 Lecture Hours.  
Advanced topics in time series econometrics, including ARMA models, unit roots and cointegration.  
Prerequisite: ECMT 677.

ECMT 680 Financial Econometrics  
Credits 3. 3 Lecture Hours.  
Basic concepts of financial engineering and elementary theory of stochastic processes and continuous time models; selected topics related to current financial econometrics research.
ECON 603 Public Economics I
Credits 3. 3 Lecture Hours.
Economics of taxation and public spending; theoretical and empirical
analysis of the shifting and incidence of income, commodity and property
taxes; models of optimal taxation and public spending; analysis of
taxation and spending in a federal system of government.
Prerequisite: Approval of instructor.

ECON 604 Public Economics II
Credits 3. 3 Lecture Hours.
Economics of collective action; theoretical and empirical analysis of
externalities; externalities and public policy; the demand and supply of
public goods; economic analysis of alternative systems of public choice;
models of bureaucratic behavior.
Prerequisite: ECON 629 or approval of instructor.

ECON 607 Foundations of Microeconomic Theory
Credits 3. 3 Lecture Hours.
Examination of positive and normative analysis in economic theory;
emphasis on policy applications of the theory.
Prerequisites: MATH 131 or equivalent; ECON 323 or equivalent; or
approval of instructor.

ECON 609 Labor Economics I
Credits 3. 3 Lecture Hours.
Valuation and allocation of human resources; labor supply of households;
labor supply over the life-cycle; determination of wages; human capital;
migration; education; labor markets; population; use of the testable
implications of theory and of evidence to explain observed labor market
behavior.
Prerequisite: ECON 629 or equivalent.

ECON 610 Labor Economics II
Credits 3. 3 Lecture Hours.
Selected topics in labor markets; unemployment; earnings differentials;
effects of occupational licensing; trade unions; income distribution;
military manpower and the draft; effects of minimum wage and equal pay
provisions; effects of welfare programs; the professional athlete’s labor
market and others; developing and analyzing empirical problems.
Prerequisite: ECON 629 or equivalent.

ECON 611 Foundations of Macroeconomic Theory
Credits 3. 3 Lecture Hours.
Development of modern static national income analysis from general
equilibrium system; roles of fiscal and monetary policy in promoting
economic stability.
Prerequisites: ECON 323 and ECON 410; MATH 131 or equivalent.

ECON 612 Money, Banking and Financial Markets
Credits 3. 3 Lecture Hours.
Role of financial markets and institutions in the allocation of resources
in the real economy; the financial regulatory and policy infrastructure
underlying financial activity to promote efficiency in asset valuation, risk
management and economic growth.
Prerequisite: Graduate classification; enrolled in the department of
economics master's program or approval of director of master’s program.

ECON 614 Economics of Microfinance
Credits 3. 3 Lecture Hours.
Analysis of recent research in financial markets in developing countries
with a primary emphasis on microfinance; micro-asymmetries involved
in lending; financial impact studies; the macro-economic literature on
financial development and growth.
Prerequisites: ECON 607 or equivalent; graduate major in the Department
of Economics’ master’s program or approval of director of master’s
program.

ECON 617 Economics of the Multinational Firm
Credits 3. 3 Lecture Hours.
Economics of the multinational firm, taking a firm-level approach to the
study of international investment; structured around recent papers from
the frontier of international trade research; examination of trends in
multinational activity and exploration of the reasons behind decisions to
invest abroad including understanding different types of foreign direct
investment; the impact of multinational firms and how government
policies impact foreign direct investment (FDI), including an overview of
transfer pricing and the arm’s length principle.
Prerequisites: Graduate classification; enrolled in the department of
economics master’s program.

ECON 618 Behavioral Financial Economics
Credits 3. 3 Lecture Hours.
Describes how individuals and firms make financial decisions that
deviate from those predicted by traditional financial or economic theory;
examines how the insights of behavioral finance complement the
traditional finance paradigm.
Prerequisites: Graduate classification; must be enrolled in the master’s
program in the Department of Economics.

ECON 629 Microeconomic Theory I
Credits 3. 3 Lecture Hours.
Core ideas in theoretical microeconomics; theory of consumer and firm;
theory of competitive output and factor markets.
Prerequisite: Approval of instructor.

ECON 630 Microeconomic Theory II
Credits 3. 3 Lecture Hours.
Advanced treatment of consumer and production theory; game theory;
general equilibrium and welfare analysis.
Prerequisites: ECON 629; ECMT 660.

ECON 631 Microeconomic Theory III
Credits 3. 3 Lecture Hours.
Advanced theoretical microeconomics; comprehensive study of
consumer and producer theory, general equilibrium and welfare, and
failures of the competitive model.
Prerequisites: ECON 629 and ECON 630.

ECON 632 Microeconomic Theory IV
Credits 3. 3 Lecture Hours.
Advanced topics in game theory; repeated games and reputation,
strategic information transmission; learning and evolution; models of
bargaining and networks.
Prerequisites: Graduate classification; ECON 629 and ECON 630 or
approval of instructor.

ECON 633 Energy Markets and Policy
Credits 3. 3 Lecture Hours.
Economics of energy markets and energy regulation with emphasis
on implications for optimal energy policy; sectors include gasoline, oil,
electricity, natural gas, renewables, nuclear; economic theory integrated
with empirical applications from American and international experience;
new energy markets, energy trading, and interaction with environmental
policy.
Prerequisite: Graduate classification.

ECON 635 Advanced Macroeconomics I
Credits 3. 3 Lecture Hours.
Traditional and modern theories of money; general equilibrium systems
and role of money in determination of prices, interest rate, income and
employment.
Prerequisite: ECON 636.
ECON 636 Macroeconomic Theory I
Credits 3. 3 Lecture Hours.
Theory of consumption, investment, money, interest, inflation and employment.
Prerequisite: ECON 410 or ECON 611.

ECON 637 Advanced Macroeconomics II
Credits 3. 3 Lecture Hours.
Effect of monetary policy on aggregate economic activity and distribution of resources; effectiveness of various policies; optimal policy in light of various institutional restrictions that exist.
Prerequisite: ECON 635.

ECON 646 Macroeconomic Theory II
Credits 3. 3 Lecture Hours.
Dynamic models, open economies, disequilibrium analysis, unemployment and inflation; traditional macro models and recent developments in macro theory.
Prerequisite: ECON 636.

ECON 649 Industrial Organization I
Credits 3. 3 Lecture Hours.
Industry structure, conduct and performance described and analyzed with tools of microeconomics.
Prerequisite: Approval of instructor.

ECON 650 Industrial Organization II
Credits 3. 3 Lecture Hours.
Behavior of markets operating under conditions of imperfect information; construction and scientific evaluation of models designed to explain industry performance.
Prerequisite: ECON 649 or approval of instructor.

ECON 652 International Trade Theory
Credits 3. 3 Lecture Hours.
Classical and neoclassical models of international trade. International price formation, patterns of trade and gains from exchange; specialization and comparative advantage; factor proportions, factor prices and the Heckscher-Ohlin theorem; foreign trade and growth; tariffs, customs unions and commercial policy.
Prerequisite: ECON 630 or approval of instructor.

ECON 655 Experimental Economics
Credits 3. 3 Lecture Hours.
Experimental methods in choice behavior experiments, survey research, planned economic environments and animal experiments.
Prerequisite: Approval of instructor.

ECON 659 Behavioral Game Theory
Credits 3. 3 Lecture Hours.
Static and dynamic games of complete and incomplete information and other advanced topics in game theory.

ECON 663 International Transfer Pricing
Credits 3. 3 Lecture Hours.
Valuation of cross-border transactions between units of a multinational enterprise; includes internal and external motivations for transfer pricing, managerial and economic approaches; estimates of transfer manipulation, arm’s length standard, U.S. and OECD rules and procedures, tax court cases and ethical dilemmas.
Prerequisite: Graduate classification.
Cross Listing: MGMT 663/INTA 663 and INTA 663/MGMT 663.

ECON 668 Decisions Under Risk and Uncertainty
Credits 3. 3 Lecture Hours.
The mean-variance and expected utility decision models; the use of risk models in asset valuation, financial decision-making and economic analysis; portfolio choice, insurance demand, saving, investment and consumption decisions.
Prerequisites: ECON 607 or equivalent; enrolled in the Department of Economics’ master’s program or approval of director of the master’s program.

ECON 675 Capstone for Financial Economics/Financial Econometrics
Credits 3. 3 Lecture Hours.
Integration of the knowledge gathered in coursework including micro- and macro-economics, financial economics, econometrics, forecasting, and other analytical tools; production of major group research paper utilizing professional literature, both printed and electronic, and published data.
Prerequisites: Graduate classification; 2 year master's student enrolled in the master’s program in the department of economics.

ECON 680 Financial Economics
Credits 3. 3 Lecture Hours.
Advanced theory of dynamic asset pricing utilizing the Economics of risk and uncertainty within a general equilibrium framework; stochastic calculus applications to the analysis of asset markets; theoretical foundations and empirical testing.
Prerequisites: ECON 630 and ECON 646.

ECON 684 Professional Internship
Credits 1 to 6. 1 to 6 Other Hours.
Opportunities to put economics learned in the classroom into practice at government or industry facilities; design projects supervised by faculty coordinators and personnel at these locations; projects selected to match student’s area of specialization.
Prerequisites: Graduate classification and enrolled in the master’s program in the department of economics.

ECON 685 Directed Studies
Credits 1 to 6. 1 to 6 Other Hours.
Directed individual instruction in selected problems in economics not related to thesis or dissertation.
Prerequisites: Graduate major or minor in economics; approval of instructor.

ECON 689 Special Topics in...
Credits 1 to 4. 1 to 4 Lecture Hours.
Selected topics in an identified area of economics. May be repeated for credit.
Prerequisite: Approval of department head.

ECON 690 Theory of Economic Research
Credits 3. 3 Lecture Hours.
Design of research experiments in various subfields of economics, and evaluation of research results with the aid of examples taken from the current scientific literature.

ECON 691 Research
Credits 1 to 23. 1 to 23 Other Hours.
Thesis research.