The Department encourages applications from students with broad intellectual interests as well as strong quantitative skills, regardless of their undergraduate majors.

The M.A. in Economics can be a terminal degree leading to careers in business, government and non-governmental organizations, or junior college teaching. Because many master’s students study part-time, the Department schedules as many core courses in the evening as possible.

The Ph.D. curriculum provides thorough training for professional economists through course work, tutorials and research workshops. It gives students a solid foundation in economic theory and econometrics and offers several carefully selected fields of specialization. The Department’s Ph.D. graduates choose careers in academia, research, and business.

Field A: Economic Theory

ECO 6000 Price and Allocation Theory Cr. 4
Introduction to the theory of consumer choice and the theory of production, and other selected topics. Primarily for M.A. students and for Ph.D. students who want to review. Offered Fall.
Prerequisite: ECO 5000 with a minimum grade of C and MAT 2010 with a minimum grade of C

ECO 6050 Macroeconomics Cr. 4
Determination of national income, unemployment and interest rates; theories of inflation; effectiveness of macroeconomic public policies. Primarily for M.A. students and for Ph.D. students who want to review. No credit after ECO 7050. Offered Winter.
Prerequisite: ECO 5050 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 7000 Microeconomic Theory I Cr. 4
Theory of choice; theory of cost and production; theory of the competitive firm. Price and output in non-competitive markets. General competitive equilibrium and welfare economics. Offered Winter.
Prerequisite: ECO 5000 with a minimum grade of C and ECO 7020 with a minimum grade of C and MAT 2010 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

ECO 7010 Microeconomic Theory II Cr. 4
Continuation of ECO 7000. Includes general equilibrium analysis and game theory. Offered Fall.
Prerequisite: ECO 7000 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

ECO 7020 Fundamentals of Economic Analysis I Cr. 4
This course assumes sound knowledge of first and second semester calculus, and teaches additional mathematics necessary for Ph.D. study in economics, and covers additional mathematics necessary for Ph.D. study in mathematics, and to a lesser extent some economic implications. Course content includes: matrices, vectors and linear algebra; partial and total derivatives; scalar and vector functions; Jacobian derivative matrices and determinants; implicit function theorem; derivatives of implicit functions with one or more endogenous variables; unconstrained maximization with two or more variables; Lagrangians and constrained maximization; envelope theorem; differential and difference equations, and systems of differential and difference equations. Offered for graduate credit only. Offered Fall.
Prerequisite: MAT 2010 with a minimum grade of C and ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

ECO 7021 Fundamentals of Economic Analysis II Cr. 4
Mathematical methods specific to macroeconomics and econometrics. Applications of matrix operations, distribution functions, estimation methods, difference equations, differential equations, inter-temporal optimization, calculus of variations, control theory. Offered Fall.
Prerequisite: MAT 2020 with a minimum grade of C and ECO 5000 with a minimum grade of C
Corequisite: ECO 7020
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.
ECONOMICS

Field B: Quantitative Methods

ECO 6100 Introduction to Econometrics Cr. 4
Basic statistics, basic probability, hypothesis testing, and bivariate and multivariate regression analysis. Estimators studied are least squares, maximum likelihood and generalized least squares. Various model specification issues addressed: omitted variables, extraneous variables, category variables, multicollinearity, heteroscedasticity, and autocorrelation. Offered Fall.
Prerequisite: ECO 6100 and MAT 2010
Restriction(s): Enrollment is limited to Graduate or Undergraduate level students.

ECO 7100 Econometrics I Cr. 4
Probability and statistics: moment generating functions, common families of statistical distributions, multiple random variables and properties of a random sample. Estimation and hypothesis testing: method of moments, generalized method of moments, maximum likelihood estimators, instrumental variable estimators, Bayes estimators, likelihood ratio tests, finite sample properties and asymptotic properties of OLS. Offered Fall.
Prerequisite: ECO 6100 with a minimum grade of C and ECO 7020 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

ECO 7110 Econometrics II Cr. 4
Modeling and estimation: generalized least squares, panel data models (fixed effects and random effects), system of equations (endogeneity, identification), models with discrete dependent variables (probit, logit), models with limited dependent variables (truncation, censoring), stationary time-series (ARMA), vector-autoregression (VAR, VMA), non-stationary time-series (unit roots, cointegration). Offered Winter.
Prerequisite: ECO 7100 with a minimum grade of C or ECO 6020 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

Field C: Industrial Organization

ECO 5230 Environmental Economics Cr. 4
Externalities as the cause of environmental degradation and climate change. Externality in turn results from the failure of the market to develop prices that reflect the full global cost of production and consumption. The course also pays attention to normative issues. The population over which the normative issues are defined may include animals, plants and inanimate objects. Behavioral economics, in particular, will be brought to bear on the discussion throughout the course. Offered Fall, Winter.
Prerequisites: ECO 1000 with a minimum grade of D- or ECO 2010 with a minimum grade of D-

ECO 6200 Advanced Regulation and Regulated Industries Cr. 4
Transportation economics. Regulation of transportation as an example of public control of business; the rationale for having public regulation, and the analysis of its economic effects; reform of the scope and practice of regulation; public ownership; regulation of occupational and product safety standards and environmental standards. No credit after ECO 5200. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 6210 Advanced Market Power and Economic Welfare Cr. 4
Monopoly, oligopoly, and competition in U.S. industry; sources of market power and their effect on prices, profits, and technological progress. Case studies. Selected topics in antitrust policy. No credit after ECO 5210. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 6250 Advanced Economic Analysis of Law Cr. 4
Economic analysis of property rights, torts, contracts, criminal law, the law of business organizations and financial markets, and the law of taxation. Economic analysis of litigation; the use of economics and statistics in litigation. Advanced mathematical analysis of selected topics. No credit after ECO 5250. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 6260 Economic Analysis of Law II: Applications of Statistics and Econometrics Cr. 4
Examines applications of statistics and econometrics to legal issues that have been considered by the courts. Offered Winter.
Prerequisites: (ECO 2010 with a minimum grade of C+ and MAT 1800-ZZZZ with a minimum grade of C+) or ECO 5100 with a minimum grade of C+
Restriction(s): Enrollment is limited to Graduate level students.
ECO 6560 Pharmaceutical Economics Cr. 4
Introduces students to cost-effectiveness analysis and related economic tools used to determine the value of pharmaceuticals to society, tools which are increasingly being used by insurance programs to regulate access to drugs by patients. It will also cover the institutional landscape of the markets for development and sale of pharmaceuticals, with a focus on the features that have made pharmaceutical prices in the United States among the highest in the world, and policy options that are being considered to reduce these prices and that have become highly politically salient in recent years. Graduate students should have some coursework in statistics. Offered Yearly.
Restriction(s): Enrollment is limited to Graduate or Professional level students.

ECO 7200 Industrial Organization I Cr. 4
Theories of competition and market power. Topics include concentration, scale economies, product differentiation, entry barriers, collusion, mergers, price discrimination, information, and advertising. Offered Every Other Year.
Prerequisite: ECO 6000 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

ECO 7210 Industrial Organization II Cr. 4
Economic analysis of antitrust policy and public regulation of industry. Rationale for regulation and mandates of various regulatory agencies. Problems in public utility rate-making. Misallocations induced by regulation. Role of competition in regulated industries. Offered Every Other Year.
Prerequisite: ECO 6000 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

Field D: International Economics

ECO 6300 Advanced International Trade Cr. 4
Factors in international relations; patterns of international specialization; balance of international payments; foreign exchange; commercial policy of United States and other countries; foreign investment and economic development; international economic cooperation. Advanced mathematical analysis of selected topics. No credit after ECO 5300. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 6310 Advanced International Finance Cr. 4
Major policy issues in the field of international finance with emphasis on open economy macroeconomics. Topics include the balance of payments and the foreign exchange market; monetary and fiscal policies in open economies; the floating exchange rate system; international financial markets; and European monetary integration. Advanced mathematical analysis of selected topics. No credit after ECO 5310. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C and ECO 5050 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

Field E: Labor and Human Resources

ECO 6400 Advanced Labor Economics Cr. 4
Economics of labor markets. Determinants of earnings and methods of compensation, labor supply and demand, effects of taxes and subsidies on labor supply, choices of occupation and level of schooling, promotion and turnover, employment discrimination, economics of crime and punishment, regulation of professions, unions. Advanced mathematical analysis of selected topics. No credit after ECO 5400. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 6415 Advanced Economics of Race and Gender Cr. 4
Theory and empirical evidence of race and gender differentials in the labor market. Topics include the difference in occupations and earnings, discrimination, poverty, and public policies. Advanced mathematical analysis of selected topics. No credit after ECO 5410. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 6420 Labor Relations and Public Policy Cr. 3
Overview of labor force trends; U.S. unionism; management of labor relations; collective bargaining: procedure and substance; bargaining power in the private and public sectors. Comparative trends and principles in industrial relations systems of other societies also examined. Offered for graduate credit only. Offered Fall, Spring/Summer.
Prerequisite: ECO 2010 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 6480 Advanced Economics of Work Cr. 3
Theoretical and empirical treatment of labor market characteristics; labor demand and supply; issues of race, gender, and age; compensation and pay; issues of health and productivity; bargaining processes and the effects of unions; unemployment and job search; globalization. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 2010 with a minimum grade of C
Restriction(s): Enrollment limited to students in the MA in Employ & Labor Relations program.

ECO 7400 Labor Economics and Human Resources Cr. 4
Labor force participation and composition; factors affecting wage levels (money and real) and wage structure. Theoretical and empirical analyses of occupational choice, labor mobility, promotion, turnover, unemployment, the effects of taxation, retirement and income inequality. Offered Every Other Year.
Prerequisite: ECO 6000 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

ECO 7410 Economics of Human Resources Cr. 4
Theoretical and empirical analyses of labor supply and family allocation of time; the return to education; role of general and firm-specific human capital and job mobility in wage growth over a career; race and gender differences in the labor market; intergenerational transfers and mobility. Offered Every Other Year.
Prerequisite: ECO 6000 with a minimum grade of C and ECO 6100 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.
Field F: Public Finance
ECO 6510 Advanced Public Finance Cr. 4
Role of government in a market economy: sources of market failure—public goods and externalities; principles of taxation and expenditures; tax incidence; federal tax structure; selected government expenditure programs. Advanced mathematical analysis of selected topics. No credit after ECO 5500. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 6520 Advanced State and Local Public Finance Cr. 4
Theory and practice of state and local government taxation and expenditure. Attention devoted to State of Michigan and municipalities in Detroit metropolitan area. Topics include: government organization, voting and mobility models, property and sales taxes, user charges, grants, education expenditure, and economic development. Advanced mathematical analysis of selected topics. No credit after ECO 5520. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.
Equivalent: UP 6750

Field G: Health Economics
ECO 6550 Advanced Economics of Health Care Cr. 4
Allocation of health care resources, with respect to demand and supply of health care. Roles of hospitals, physicians, and health insurance; market imperfections and their role in the economics of health care. Advanced mathematical analysis of selected topics. No credit after ECO 5550. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 7550 Economics of Health Care I Cr. 4
Basic introduction to health care economics including allocation of health care resources, economics of information, and the role of advertising. No credit after ECO 5550. Offered Every Other Winter.
Prerequisite: ECO 6000 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

ECO 7560 Economics of Health Care II Cr. 4
Particular roles of hospitals, physicians, and health insurance in the economy. Analysis of government policies. No credit after ECO 5550. Offered Every Other Year.
Prerequisite: ECO 6000 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.

Field H: Economic Development
ECO 6600 Advanced Development Economics Cr. 4
National poverty and economic growth viewed from a historical and theoretical perspective; particular emphasis on national and international policies. Advanced mathematical analysis of selected topics. No credit after ECO 5600. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

ECO 6650 Regional, State, and Urban Economic Development: Policy and Administration Cr. 3
Examination of regional, state, and local economic development theory, analysis, policy and administration. Offered for graduate credit only. Offered Every Other Year.
Restriction(s): Enrollment is limited to Graduate level students.
Equivalent: PS 6440, UP 6550

Field I: Macro and Financial Economics
ECO 6700 Advanced Money and Banking Cr. 4
Role of the Federal Reserve System, the commercial banks, and the non-bank public (including financial intermediaries) in determining the money supply; central banking and techniques of monetary control; indicators and targets of monetary policy; and how money affects economic activity. Advanced mathematical analysis of selected topics. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 2020 with a minimum grade of C and ECO 5050 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

Field J: Urban and Regional Economics
ECO 6800 Advanced Urban and Regional Economics Cr. 4
Introduction to the economic foundations of urban problems; land use, housing, poverty, transportation, local public finance; regional industry mix, income, growth and development; the national system of cities and location of firms. Advanced mathematical analysis of selected topics. No credit after ECO 5800. Offered for graduate credit only. Offered Yearly.
Prerequisite: ECO 5000 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

Directed Readings and Special Courses
ECO 7996 Research in Economics Cr. 2-8
Open to qualified students who desire opportunity for research and directed study. May be conducted as seminar. Offered Every Term.
Restriction(s): Enrollment is limited to students with a major in Economics; enrollment is limited to Graduate level students.
Repeatable for 16 Credits

ECO 9990 Pre-Doctoral Candidacy Research Cr. 1-8
Research in preparation for doctoral dissertation. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students.
Repeatable for 12 Credits

ECO 9991 Doctoral Candidate Status I: Dissertation Research and Direction Cr. 7.5
Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students.

ECO 9992 Doctoral Candidate Status II: Dissertation Research and Direction Cr. 7.5
Offered Every Term.
Prerequisite: ECO 9991 with a minimum grade of S
Restriction(s): Enrollment is limited to Graduate level students.

ECO 9993 Doctoral Candidate Status III: Dissertation Research and Direction Cr. 7.5
Offered Every Term.
Prerequisite: ECO 9992 with a minimum grade of S
Restriction(s): Enrollment is limited to Graduate level students.

ECO 9994 Doctoral Candidate Status IV: Dissertation Research and Direction Cr. 0
Offered Every Term.
Prerequisite: ECO 9993 with a minimum grade of S
Restriction(s): Enrollment is limited to Graduate level students.

ECO 9995 Candidate Maintenance Status: Doctoral Dissertation Research and Direction Cr. 0
Offered Every Term.
Course Material Fees: $416.08
Repeatable for 0 Credits