COURSE DESCRIPTIONS

ECO 530: Macroeconomic Analysis
Course Description: The course provides an introduction to advanced models and methods in macroeconomics and economic measurement. This course will cover designing and implementing macroeconomic policies, forecasting GDP and its components, as well as provide an overview of models of national income determination; sectorial inflation; labor markets, production theories, and aggregate supply models; supply and demand for money; foreign trade and balance of payments.
Prerequisites: Calculus OR Mathematical Economics AND Intermediate Macroeconomics

ECO 534: Microeconomic Analysis
Course Description: This course provides an introduction to mainstream theories of choice and decision making, alongside a survey of basic microeconometric techniques. Topics include consumer theories of utility maximization; producer theories of profit maximization and cost minimization; choice under uncertainty; game theory; and market failures. Throughout the course special attention will be paid to some empirical results in related literature.
Prerequisites: Calculus OR Mathematical Economics AND Intermediate Microeconomics

ECO 638: Monetary Policy Analysis
Course Description: This course is designed as a survey of the basic theories and applications in monetary economics for master's level students. The main objective of the course is to help students understand the core aspects of the monetary economy. Several key theoretical frameworks will be constructed, and various monetary economic phenomena, including monetary policy actions will be analyzed within such frameworks. A key focus of the course will be to cover existing applied monetary policy research to connect these frameworks.
Prerequisites: Money and Banking, Monetary Policy OR Central Banking

ECO 657: Applied Managerial Economics
Course Description: The focus in this course is on the role and functioning of business firms in the economy, and the application of economic theory in the solution of managerial decisions. Practical business cases are used along with more theoretical materials, and the implications for public policy are also considered. Topics include supply and production, estimating cost production functions, demand analysis, market structure and strategic behavior, and issues of regulation.
Prerequisite: Intermediate Microeconomics

ECO 682: Applied Game Theory
Course Description: This course examines advanced applications of game theory to current issues. The course utilizes game theoretic modeling to illustrate the key concepts applicable to many economic and business situations. Topics will include auction structure, mechanism design, replicator dynamics, negotiation, market structure, bargaining, and price-setting. **Prerequisite**: None

ECO 585: Applied Econometrics
Course Description: This course introduces econometrics at the master's level. This course follows the Economics Statistics course and builds on it by applying those skills to a more robust set of economic problems, and further considers statistical issues related to such analyses. Topics include Indicator and Dummy Variables; Auto and Serial Correlation; Heteroskedasticity; Multicollinearity; Structural Change; Distributed Lag Models; ARCH and GARCH Models; Pooling of Time-Series and Cross-Sectional Data; Simultaneous-Equation; and SUR Models.
Prerequisite: Undergraduate Econometrics

ECO 590: Data Analytics (R and Python)
Course Description: This course is an introduction to data cleaning, analysis and visualization using R and Python. It will focus on the basics of data analysis through concrete examples. You will learn how to take raw data, extract meaningful information, use statistical tools, and make visualizations. Python is a language with a simple syntax, and a powerful set of libraries. While it is easy for beginners to learn, it is widely used in many scientific areas for data exploration. This course also provides an introduction to R and Python programming language for students without prior programming experience.
Prerequisite: Undergraduate Econometrics

ECO 610: Environmental and Ecological Economics and Policy
Course Description: This course applies microeconomic concepts and techniques to such issues that arise from the growth, use, depletion and degradation of natural systems and their components, including land, energy, air, water, and biodiversity. It also looks for solutions that exploit economic facets of human behavior to address these issues in ways that get the most done a minimum cost. We draw from traditional neoclassical economics and the emerging discipline of ecological economics. In this way, we ensure that our understanding of the economic subsystem is grounded in sufficient understanding of the larger biophysical or natural system on which the economic subsystem depends. We will also address questions of sustainability (how big can/should the economy be), and justice (who benefits and who pays when natural resources are used) as equally important with the question of whether the use of natural resources is efficient.
Prerequisite: Intermediate Microeconomics

ECO 686: Health Economics
Course Description: This is a course in the application of microeconomic principles to health behaviors, such as exercising, smoking, and eating (or overeating), as well as to the markets for health care and health insurance. We first focus on consumer behavior and demand for medical services. An important framework in this part of the course is that health can be treated as a capital good that individuals invest in based on the costs and benefits. The second part of the course deals with the health insurance market and the role that health insurance, private as well as public, plays in determining the demand for health and heath care. An analysis of health policy will be strongly emphasized.
Prerequisite: Intermediate Microeconomics

ECO 687: Time-Series Analysis
Course Description: The course provides a survey of the theory and application of time series methods in econometrics for master's level students. Topics covered will include univariate stationary and non-stationary models, vector autoregressions, frequency domain methods, models for estimation and inference in persistent time series, and structural breaks. Applications will be drawn primarily from macroeconomics.
Prerequisite: Applied Econometrics

ECO 690: Public Economic Policy Analysis
Course Description: This course introduces students to advanced theories of taxation and public expenditure. The course will have a heavy focus on modern empirical findings related to these theories. Further, the course will introduce students to Panel Series Econometrics, a common-tool in public policy research as well as Benefit-Cost Analysis. Topics will include tax incidence, the effect of taxation on labor supply and savings, taxation and corporate behavior, and tax expenditure policy, redistribution and welfare policy, social insurance programs, e.g., social security, unemployment insurance, and health care policy.
Prerequisite: Intermediate Microeconomics and Undergraduate Econometrics

ECO 699: Master's Thesis
Course Description: The purpose of this course is to provide training in how to critically analyze economic issues**. Students have a choice of writing a graduate research thesis paper or three public economic policy essays.** Students are required to demonstrate their ability to critically, independently and creatively identify and formulate hypotheses and develop a research plan, to complete an individual research study with the goal of contributing to the economics discipline. Students will work with their thesis adviser throughout the semester, with the expectation that meetings will be frequent.
Prerequisites: Completion of 24 graduate credits AND approval by the Program Director.