ECONOMICS (ECON)

Economics Graduate Courses

ECON 8010 SEMINAR IN PUBLIC FINANCE (3 credits)
This course is designed to develop the tools of applied welfare economics and to use these tools to evaluate the expenditure and tax decisions of governments. The structure, effects and reform of the U.S. individual and corporate income taxes, social security and healthcare system will be emphasized. Government debt and deficits will also be discussed.
Prerequisite(s): ECON 3200 or ECON 8210 or BSAD 8100 or permission

ECON 8050 ECONOMIC EDUCATION (3 credits)
A study and examination of economic principles and how they can be related to the teacher's classroom presentation. This course is designed to furnish the k-12 teacher with sufficient background and understanding to aid in the recognition of economic issues and the teaching of economic concepts and principles.
Prerequisite(s): No previous course work in economics. Not open to Economics majors.

ECON 8080 MONEY AND FINANCIAL INSTITUTIONS (3 credits)
This course examines the financial system (institutions, instruments, markets, practices, and public authorities), and the implementation of monetary policy that aims to maintain financial stability and support economic growth. The course discusses current events reported in the financial press and uses the analytic frameworks developed in class to analyze these issues. This course trains students to think systematically about the current state of the economy and use quantitative tools to analyze the interactions between monetary policy and the financial system.
Prerequisite(s): MATH 1310 or MATH 1220, ECON 2200 and ECON 2220, each with a "C" (2.0) or better, or permission of instructor.

ECON 8200 SEMINAR IN MICRO ECONOMIC THEORY (3 credits)
The course covers major topics in microeconomic theory. The major topics covered are the theory of consumer behavior, theory of production and cost, theory of the firm, pure exchange economy, general equilibrium, and welfare theory.
Prerequisite(s): ECON 3200, ECON 3220 and ECON 8306 or permission.

ECON 8210 APPLIED MANAGERIAL ECONOMICS (3 credits)
This is a course in empirical economic modeling techniques deployed by economists and other business consultants use in business and public policy applications. There are four main themes: 1) techniques used in demand analysis and economic forecasting, 2) techniques used in production and cost analysis, 3) supply chain and trade analysis, and 4) analysis and measurement of competitive interactions.
Prerequisite(s): ECON 2200 or equivalent, or permission of the instructor.

ECON 8216 INDUSTRIAL ORGANIZATION (3 credits)
In this class we will examine why firms and industries behave the way that they do. We will explore why some industries face intense competition while others enjoy large profits, why some industries offer only bundles, and why some firms buy up their supply chain when others do not. This theoretical course will illuminate un-theoretical implications to your life and future business ventures. This course will use your economic knowledge, a bit of psychology (behavioral economics) and game theory to answer questions like "Why does everyone hate the cable company?" and "Why are CEOs given so many stock options?" (Cross-listed with ECON 4210).
Prerequisite(s): MATH 1310 or MATH 1220, ECON 2200 and ECON 2220, each with a "C" (2.0) or better, or permission of instructor.

ECON 8220 SEMINAR IN MACRO THEORY (3 credits)
This course traces the development of macroeconomic theory from the classical point of view to current schools of thought. Keynesian, neo-Keynesian and neo-classical models are developed.
Prerequisite(s): ECON 3200 or ECON 8210 or BSAD 8100, ECON 3220, and ECON 8306, or permission.

ECON 8230 BUSINESS CONDITIONS ANALYSIS (3 credits)
This course is concerned with the statistical measurement and evaluation of general business conditions, as well as the adaptation of business policies to changing business conditions. Emphasis is placed upon the practical application of statistical analysis techniques to business situations within the framework of the aggregate economy.
Prerequisite(s): ECON 2200 and ECON 2220.

ECON 8246 LABOR ECONOMICS (3 credits)
The course will cover essential topics in Labor Economics including factors leading to equilibrium conditions in the labor market, human capital accumulation, discrimination in the workplace, compensation for undesirable work, mobility, unionization, and more. (Cross-listed with ECON 4240).
Prerequisite(s): ECON 2200 OR BSAD 8150 OR Instructor Approval

ECON 8256 SPORTS ECONOMICS (3 credits)
Economics is frequently considered an abstract topic, with interesting results that are not easily applied in the real world. Through Sports Economics, students will explore the very real ways in which economics influences sporting competitions and the businesses surrounding them. Students will explore topics such as unionization in sports, discrimination, amateurism, monopoly power, game theory, and more in the context of sports, giving the student a deeper understanding of how these topics apply to real-world problems. After this course, students will understand how readily economics can be applied to businesses and problems in any industry or domain. (Cross-listed with ECON 4770).
Prerequisite(s): ECON 2200 OR BSAD 8150 OR Equivalent OR Instructor Approval. Not open to non-degree graduate students.

ECON 8290 RESEARCH METHODS IN ECONOMICS AND BUSINESS (3 credits)
Covers the methodology of economics: choosing a research topic, literature search tools, data source identification, data summary techniques, basic statistical data analysis using statistical packages, and clear economics writing. The student will become familiar with these techniques through text materials, journal studies, and completion of an empirical economics paper.
Prerequisite(s): ECON 3200, ECON 3220, or equivalents, or permission of the instructor. Not open to non-degree graduate students.

ECON 8300 ECONOMETRICS (3 credits)
The study of the underlying assumptions, techniques and applications of single and multiple equation regression analysis in economics.
Prerequisite(s): Basic Statistics, ECON 8306/ECON 4300, or permission. Not open to non-degree graduate students.

ECON 8306 QUANTITATIVE APPLICATIONS IN ECONOMICS AND BUSINESS (3 credits)
The study and application of modern quantitative techniques to problem-solving in economics and business. It is designed to help the student to translate verbal arguments in economics and business into their mathematical equivalents, to improve analytical skills, and to attain proficiency in marginal analysis, equilibrium analysis, static optimization, and comparative statics analysis. It covers topics such as exponential and logarithmic functions and their applications, linear algebra and its applications, derivatives and their applications, maximization of functions with one variable and multi variables, maximization with non negativity constraints, and integral calculus and its applications in economics and business. (Cross-listed with ECON 4300).
Prerequisite(s): ECON 2200 and ECON 2220, or BSAD 8180.

ECON 8310 BUSINESS FORECASTING (3 credits)
The course will cover forecasting tools and applications applied to business settings. The first half of the course will cover traditional Econometric forecasting methods and the second half of the course will focus on predictive analytics models and machine learning. Time in the computer lab will be focused on teaching students how to implement the models discussed in lectures. (Cross-listed with BSAD 8080).
Prerequisite(s): ECON 8320 (or equivalent programming experience) or permission of instructor. Not open to non-degree graduate students.

ECON 8316 BUSINESS INTELLIGENCE AND REPORTING (3 credits)
The course will teach students to use state-of-the-art Business Intelligence (BI) software to generate reports and information from data. BI software is used to inform decision-making in industries from transportation to medicine, from marketing to government, and is facilitated by rapidly increasing access to data in all industries. Students will learn to employ best practices in visualization and verbal communication as they are trained to create valuable insights from data and convey those insights to stakeholders. Additionally, the course will aid students in preparing for certification in the use of state-of-the-art BI software. (Cross-listed with ECON 4350).
Prerequisite(s): BSAD 2130 (or equivalent) OR Instructor Approval

ECON 8320 TOOLS FOR DATA ANALYSIS (3 credits)
The course will cover basic principles of programming languages, as well as libraries useful in collecting, cleaning and analyzing data to answer research questions. The course will utilize basic Economic principles and Econometric methods as inspiration for assignments and projects throughout the duration of the course, and will do so in a way that is accessible to non-Economists. This course is intended to introduce the student to the Python programming language as a tool for conducting data analysis. While the course uses Python, the student should be able to move to other languages frequently used in data analysis using the principles taught in this course.
Prerequisite(s): BSAD 2130 or equivalent; or instructor approval.

ECON 8326 NATURAL RESOURCE ECONOMICS (3 credits)
This course introduces students to the economics and management of Earth's natural resources. We address questions such as: Are we running out of natural resources? Are we using resources in a sustainable fashion? What role to markets play in resource use? We will address issues related to fossil-based resources, minerals, fisheries, water, land, forests and other associated topics. The course covers the basic theoretical framework for understanding the optimal rate of resource use, identifies the factors that determine the actual rate of use, and considers and evaluates various public policy prescriptions. (Cross-listed with ECON 4320).
Prerequisite(s): ECON 2200 and ECON 2220, BSAD 8150 or permission of instructor.

ECON 8330 DATA ANALYSIS FROM SCRATCH (3 credits)
Econometrics is routinely taught as an application class using a 'black box' like Stata or SAS to perform calculations. This class takes a different approach. Using the Python programming language, we build all estimators from scratch. Additionally, we introduce numerous non-parametric and simulation techniques. This approach to econometrics results in a stronger understanding of statistical assumptions and methods, a better understanding of when a method is appropriate, and stronger programming techniques. Furthermore, a deeper understanding of the underlying mechanics provides the student the ability to program custom procedures not already built into popular software packages. As part of the course, students will work with a community partner to answer a real question with data; MBA students should consult with their advisor about this course satisfying the project-focused capstone requirement.
Prerequisite(s): A multivariate or regression analysis course such as ECON 8300, ISQA 9130 or STAT 8436, and a programming class such as ECON 8320 or equivalent programming experience; or instructor approval. Not open to non-degree graduate students.

ECON 8336 ENVIRONMENTAL ECONOMICS AND BUSINESS STRATEGY (3 credits)
In this course students will apply economic concepts and models to environmental concerns and policy solutions that combat environmental degradation. Topics include: Air and water pollution, solid waste management, carbon taxation, cap-and-trade systems, and economic motivations for environmental business management. (Cross-listed with ECON 4330).
Prerequisite(s): Admission to Graduate College, MBA Program or by permission of the instructor. Not open to non-degree graduate students.

ECON 8346 ECONOMICS OF TECHNOLOGY (3 credits)
Innovative dynamism is the economic system which brings us the new goods and processes that make life longer and better. We will examine how the system works, including: The role of the breakthrough inventor and the innovative entrepreneur; whether the system improves or hurts ethical behavior, culture, equality, and the environment; the costs to workers in terms of job loss, and the benefits to workers in terms of the creation of better jobs; how funding, regulatory, and patent policies affect innovative dynamism; and how innovative dynamism in medicine can result in more and faster cures for cancer and other diseases. (Cross-listed with ECON 4340).
Prerequisite(s): ECON 2200 or BSAD 8180 or permission of the instructor.

ECON 8456 DOMESTIC MONETARY THEORY AND POLICY (3 credits)
The course will introduce students to topics in money and banking, financial institutions, markets, financial instruments, and monetary theory in order to enhance financial decision making and enable students to effectively analyze economic news in media such as the Wall Street Journal, The New York Times, Business Week, Barrons, The Economist, and other related business publications. This knowledge will enable students to formulate their own views about the current economic environment, government policies, and responses to economic environments. (Cross-listed with ECON 4450).

ECON 8576 ECONOMIC CONDITIONS ANALYSIS (3 credits)
This course teaches students how to conduct an economic analysis of, and produce an economic forecast for, a local economy such as a state, county, or metropolitan area. Students will learn where to find data, how to analyze that data, how to develop models with the data, and how to present the data in a clear, concise, and jargon-free manner. The final published report will be authored by the students registered in the course. All students will contribute equally to the final report. The instructor will ensure equal participation. (Cross-listed with ECON 4570).
Prerequisite(s): ECON 2200 and ECON 2220, or Permission from the instructor

ECON 8616 INTERNATIONAL TRADE (3 credits)
An analysis of the character of international economic relations. Subjects covered include the economic basis for international specialization and trade, the economic gains from trade, commercial policy, economic integration and economic growth. (Cross-listed with ECON 4610).
Prerequisite(s): MATH 1310 or MATH 1220, ECON 2200 and ECON 2220, or BSAD 8180, or permission of instructor.

ECON 8626 INTERNATIONAL MONETARY THEORY (3 credits)
This course is designed to introduce students to topic areas in International Macroeconomics and International Finance. Students will examine the mechanisms of the foreign exchange market, and how exchange rates are determined in the short-run as well as in the long-run. Students will investigate the different exchange rate regimes around the world, including fixed exchange rates, floating exchange rates, crawling pegs, and other arrangements. Students will examine the European Union and ask whether such a system is economically viable. This is especially important in the current economic environment facing Europe. Students will also examine exchange rate crises over history, and examine how they all have common elements. (Cross-listed with ECON 4620).
Prerequisite(s): ECON 2200 and ECON 2220, or BSAD 8180, or permission of instructor.

ECON 8666 INTERNATIONAL ECONOMIC DEVELOPMENT (3 credits)
This course introduces theories and application of economic development and growth, economic problems facing developing countries, analyzes domestic economic issues (e.g., per capita GDP, income distribution, population, unemployment, urbanization, education, fiscal policies, and financial policies), and international economic issues (e.g., trade, foreign investment, and foreign debt). Financial crises, debt crises, and economic recovery will be discussed. (Cross-listed with ECON 4660).
Prerequisite(s): ECON 2200 and ECON 2220, or BSAD 8180, or permission of instructor.

ECON 8736 ECONOMICS OF ENTREPRENEURSHIP (3 credits)
This course will review economic theories of entrepreneurship with special emphasis on Schumpeter's theory of creative destruction. The main focus of the seminar will be on the "high-level" entrepreneurship that sometimes results in major innovations. This course will address the societal benefits of entrepreneurship, factors influencing entrepreneurial success, the policies that best encourage entrepreneurship, and how firms can survive and prosper in an entrepreneurial environment. (Cross-listed with ECON 4730, BSAD 8736.)
Prerequisite(s): ECON 2200 or permission of the instructor for all students.

ECON 8856 ECONOMICS OF URBAN AND REGIONAL DEVELOPMENT (3 credits)
This course exposes students to the field of Urban Economics with a focus on the latest theories and empirical tools used by economic development experts to measure urban and regional activity and develop strategies for future economic growth and prosperity. As such, students will learn where to find urban and regional data and how to best utilize such data. This combination of theory and practical application is ideal for any student studying economics, business, public policy or political science and those who might be interested business location, urban and rural growth and economic development more generally. (Cross-listed with ECON 4850).
Prerequisite(s): MATH 1310 or MATH 1220, ECON 2200 and ECON 2220, each with a "C" (2.0) or better, or permission of instructor.

ECON 8910 SPECIAL STUDIES IN ECONOMICS (3 credits)
This course will focus on issues or developments in a specific area of economics or business.
Prerequisite(s): Graduate student in good standing and as indicated for specific workshop or seminar.

ECON 8920 INDEPENDENT STUDY (1-3 credits)
Guided independent study and research.
Prerequisite(s): Graduate student in economics and permission of instructor.

ECON 8940 ECONOMIC INTERNSHIP (1-3 credits)
Guided internship in a firm or organization that makes use of, or extends, the student's skill in economics.
Prerequisite(s): Completion of at least nine hours of graduate level economics and permission of instructor.

ECON 8990 THESIS (1-6 credits)
An independent research project, written under the supervision of a graduate adviser in the department of economics. Approval of the topic and the completed project by departmental committee is required.
Prerequisite(s): Approval of the topic and the completed project by departmental committee is required.