

ECONOMICS

Courses

ECON 5005. Fair Trade Entrepreneurship. (3 Credits)

Fair trade is a global response to social injustice and poverty. Whether it is capital for “startups” or markets for fair trade coffee, the fair trade movement promotes socially and environmental responsibility business practices here and abroad. This course reviews the fair trade movement’s successes and failures to find alternatives to business as usual that reduce poverty and build a sustainable global economy. Students focus on country specific examples of fair trade and microfinance social innovation that reduce poverty by creating viable livelihoods. Marketing, insurance, finance and management can all be applied to build a socially justice and sustainable global economy. “We urgently need a humanism capable of bringing together the different fields of knowledge, including economics, in the service of a more integral and integrating vision” Pope Francis argues in his recent Encyclical Letter, this course explores this vision.

Attributes: CEED, CENS, GSSE, LALS, LASS.

ECON 5006. Programming Economics and Finance. (3 Credits)

This course introduces the student to various computer programs and their applications in economics and in finance. The course begins with a general review of programming skills using MATLAB. It then presents other statistical and econometric packages such as SAS and STATA. The course concludes with a review of the LATEX program.

Attribute: EDFI.

ECON 5011. Economic Analysis. (3 Credits)

This course provides a survey of macroeconomic and microeconomic theory intended to prepare those international political economy and development (IPED) students who did not major in economics as undergraduates for IPED’s core courses in economics.

Attribute: IPED.

ECON 5012. Foundations of Economics. (3 Credits)

This course is designed for students who did not major in economics but wish to pursue a master’s degree in economics. It covers the foundations of microeconomic and macroeconomic theory and is intended to prepare new M.A. or M.S. students in economics for the core economics courses in the M.A. program in economics or the dual M.A./M.S. program in economics and data science. This course cannot be taken concurrently with ECON 6010 or 6020.

Mutually Exclusive: ECON 5011.

ECON 5015. Economic Development Policy. (3 Credits)

Using economic methodology, this course examines the interaction between political and economic institutions in the determination of economic policy in developing countries. Topics may include population control, urban bias, agrarian reform, trade policies, foreign aid, and macroeconomic adjustment policies.

Attributes: CEED, CENS, HUCB, IPED, URSG.

Prerequisite: ECON 5011.

ECON 5020. African Economic Development. (3 Credits)

The key objective of this course is to develop an understanding of the economic development problems of Africa, the trade patterns and financial relationships of Africa to the rest of the world. With examples, application, and country case studies, the course covers major development challenges and the possible solutions, the growing influence of African economics in industrialized and developing countries as well as future prospects.

Attribute: HULI.

ECON 5032. Economic Theory and Application of Transfer Pricing. (3 Credits)

The reorganization of corporations into large multinational units with diverse operations has renewed interest in the issue of transfer pricing of goods and services as they move between corporate units. Transfer pricing gives rise to a host of taxation and economic issues. In this course, we focus on economic models for transfer pricing using agency theory and game theory and discuss Hirshleifer’s theories of corporate organization. We then discuss a variety of tax issues that arise under different pricing schemes and work through case studies to provide a well-rounded perspective of how theory relates to practice. Undergraduate seniors who wish to enroll in ECON 5032 must have successfully completed ECON 3118 and obtained the written permission of the professor, graduate department program director, and senior class dean to register for this course.

ECON 5040. Strategic Financial Management. (3 Credits)

This course provides students with an introduction to the basic questions facing an investor evaluating firm policy. It covers debt/equity choice, dividend policy, and principle-agent problems within the firm as well as the value of the firm under different financial and managerial structures. Current research is surveyed to determine how investors interpret various financial arrangements such as dividend policy, taxes, and stock offerings. Specific attention will be paid to information and incentives of each party in a financial contract in the context of structuring the firm, running the firm efficiently, and if all else fails, bankruptcy.

ECON 5105. Topics in Economic History. (3 Credits)

The course aims to examine how to apply the core ideas and methods of economics to a wide range of historical issues, while at the same time broadening and deepening the exchange of ideas between economists and historians.

Attributes: EDAM, HIST, PSIC.

ECON 5260. Epidemics and Development Policy. (3 Credits)

In this course, students examine epidemics in developing countries, their transmission and governmental policy related to their control. Students are expected to have completed the equivalent of Intermediate Microeconomics at the Undergraduate level.

Attributes: CEED, CENS, EDAM, GSSE, HUCB, INST, IPED, ISIN, PSIC.

ECON 5280. Urban Economics. (3 Credits)

The field of urban economics addresses a wide variety of urban questions and topics. At the most general level, the field introduces space into economic models and studies the location of economic activity. Urban economics typically addresses four sets of questions: development of urban areas, patterns of development within metropolitan areas, the spatial dimensions of urban problems, and the spatial aspects of local government.

Attributes: CEED, CENS, EDAM, PSIC.

ECON 5415. Gender & Economic Development. (3 Credits)

In this course, students analyze the social nature of gender and economic development from a cross-cultural perspective. Topics include household labor, occupational segregation and earnings, inequality in market work, poverty, family structure, public policy, and gender equity. The course draws on material from economics and other social sciences to analyze the social nature of gender and economic development in a cross-cultural perspective. Topics include women’s household labor; occupational segregation and earnings inequality in market work; the intersections of gender, class, race, and ethnicity; women and poverty; family structure; public policy and gender equity.

Attributes: CEED, CENS, EDAM, HULI, PSIC.

ECON 5442. Emerging Markets: South Africa. (3 Credits)

Intended for students from South Africa participating in Fordham's ADV EMRA program, this course is offered every August at the University of Pretoria. Students will collect and analyze economic and financial data on South Africa and compare it to similar data on the emerging markets as well as with more established markets. In addition, students will have the opportunity to interact with South African business, labor, and government representatives as well as with U.S. business and government representatives. At the end of the course, students will attempt to determine the prospects for foreign equity investment for a particular country.

ECON 5500. Financial Analysis. (3 Credits)

An examination of the pricing of financial instruments and the working of the markets for stocks, bonds, options, and futures contracts.

Attribute: IPED.

ECON 5510. International Economic Policy. (3 Credits)

Using economic methodology, this course examines the interaction between political and economic institutions in the determination of international economic policy. Topics may include protectionism, strategic trade policy, sanctions, and macroeconomic coordinations.

Attributes: INST, IPED, ISIN.

Prerequisite: ECON 5011.

ECON 5515. International Monetary Policy. (3 Credits)

This graduate-level course in international macroeconomics and finance is part of the core courses of the International Political Economy and Development program. It is designed to help students develop an understanding of international capital markets and provide a conceptual framework for the analysis of macroeconomic policy in an open economy.

Attribute: IPED.

ECON 5540. Emerging Markets. (3 Credits)

This course is intended primarily for IPED students interested in analyzing the dynamics of emerging financial markets in Africa, Asia, and Latin America. It compliments POGA 6991- Political Risk Analysis. Students must prepare a study of one country's basic macroeconomic performance, foreign exchange market, and stock market. The use of a computer and the internet are incorporated into the course to gather data and analyze it statistically. Intended primarily for IPED students, this course explores the dynamics of emerging financial markets in Africa, Asia, Eastern Europe, and Latin America. Complementing and expanding upon the skills learned in POGA 6991 Political Risk Analysis, students learn how to prepare a country study regarding their country's leading macroeconomic indicators, the stability of its foreign exchange market, and the likely returns and risks associated with its stock market. Real-time data is obtained from the university's Bloomberg Terminal and the internet. Additional data is available from standard written and CD-ROM statistical sources. Students are taught how to analyze this data using standard statistical software to forecast trends as well as to estimate returns, volatility, and cross-correlations. An optimal portfolio of equity investments in emerging markets is estimated. Students also analyze the dynamics of emerging financial markets in Africa, Asia, Eastern Europe, and Latin America.

ECON 5541. Emerging Markets: South Africa. (3 Credits)

In this course, students will analyze economic and financial data in order to judge the prospect for foreign equity investment in South Africa. Students will also meet with union, business, government, and political leaders. This course can substitute for ECON 5540 Emerging Markets and count toward the requirements for the Emerging Markets and Country Risk Analysis certificate.

ECON 5542. Emerging Markets: South Africa. (3 Credits)

Intended for students from South Africa participating in Fordham's ADV EMRA Program, this course is offered every August at the University of Pretoria. Students will collect and analyze economic and financial data on South Africa and compare it with similar data on other emerging markets as well as with more established markets. In addition, students will have the opportunity to interact with South African business, labor, and government representatives as well as with U.S. business and government representatives. At the end of the course, students will attempt to determine the prospects for foreign equity investments for the particular country.

ECON 5545. Microfinance in Emerging Economies. (3 Credits)

This class will present the basic concepts related to microfinance, its origins and evolution. Students will analyze the main "emerging economies" microfinance models. The course will also present a detailed analysis of successful MFIs, their results in terms of micro-business development, and their impact on development and social inclusion. The class will present a detailed analysis of successful MFIs, their results in terms of micro-business development, and their impact on development and social inclusion. Students will also focus on the products and instruments used and how MFIs make them attractive and accessible for their clients, and at the same time profitable, creating a self-sustaining business model.

ECON 5551. Domestic and International Banking. (3 Credits)

A survey of domestic, and international banking activities and regulations, foreign exchange futures and options, foreign exchange rates, Eurocurrency markets, interest rate swaps, American banking regulations, hedging foreign exchange and interest rate risk, and financial innovation.

Attribute: IPED.

ECON 5570. Global Financial Markets. (3 Credits)

The course describes the markets and regulatory structures in which firms operate and the types of financial instruments used in developed and developing countries. Examines sources of risk investors face as well as how the financial system itself plays a role in development. An examination of financial markets in developed and developing countries. This course describes the markets and regulatory structures in which firms operate to raise funds and the type of financial instruments used. Attention is paid to sources of risk investors face domestically and internationally and the pricing of that risk. The course also looks at how firms operate under the financial constraints of a developing economy as well as how the financial system itself may play a role in affecting the rate of development. Satisfies IPED students the GBA certificate prerequisite of FN6411 Financial Environment. Designed to complement topics covered in ECGA 5551 Domestic and International Banking.

Attributes: INST, IPED, ISIN.

ECON 5590. Health Economics. (3 Credits)

The aim of this course is to evaluate health expenditures and health policies in both the U.S. and in developing countries using a common framework that integrates equity and efficiency. The course covers cost minimization, cost-effectiveness analysis, cost-utility analysis, and cost-benefit analysis. All theories are matched with an application related to an actual policy expenditure decision. Applications related to the U.S. include valuing physician service, alcohol treatment, inpatient care, diagnostic related groups (DRGS), psychiatric hospitals, Medicare payments, and bills charged to patients. Applications of special interest to developing countries include vaccinations, Disability-Adjusted Life Years (DALYS) and the global burden of disease, user fees, and various interventions for HIV/AIDS.

Attribute: EDAM.

ECON 5600. Health and Development. (3 Credits)

This course introduces students to the field of health and development. The objective is to cover a range of theoretical and empirical topics relevant to understanding health and health-care policies in developing countries. Microeconomic techniques are used to understand the demand and supply of health, the measurement of health over the human life cycle (in-utero, early childhood, adolescence, working-age population, aging population), and the role of public policy in improving the demand and supply of health over the human life cycle. In this interdisciplinary course, students will be exposed to studies from many related fields, in particular development studies, public health, and disability studies. For select topics, students will learn how to measure and analyze data that contributes to health policy debates (related to subsidies, incentives, insurance, and others) in developing countries. The course is aimed toward students interested in understanding health and health-care policies in developing countries.

Attributes: EDAM, PSIC.

ECON 5700. Mathematical Methods in Economics I. (3 Credits)

The primary objective of this course is to provide incoming Ph.D. students with solid mathematical foundations necessary for the first-year sequence of theory and econometric courses. This course is designed on the presumption that students will have already been exposed to some of this material in previous studies.

ECON 5710. Mathematical Analysis in Economics. (3 Credits)

Economists use models to analyze economic issues, and these models are usually expressed as sets of relationships that take a mathematical form. This course teaches students the core set of mathematical tools and techniques used in constructing and solving economic models. It will mainly develop the mathematical tools of calculus and matrix algebra and demonstrate how these tools may be used in economic analysis. Topics covered include matrices, determinants, and inverse matrices; calculus (differential and integral) and comparative statics; exponential and logarithmic functions; optimization of functions of one variable, and unconstrained and constrained optimization of functions of several variables.

Attribute: IPED.

ECON 5730. Econometrics and Finance Using R - Part I. (3 Credits)

This course will introduce students to R software, which they will use to work through statistical applications in economics and finance, as well as other fields.

Attribute: EDST.

ECON 5735. Econometrics and Finance Using R - Part 2: Topics. (3 Credits)

In this course, students will continue the analysis of problems in economics and finance using econometrics in R software, focusing on various topics. The course provides instruction in both econometrics and empirical implementation using R.

ECON 5740. GIS Mapping: Stata and R Prog. (3 Credits)

This course studies the mapping of long data sets into geographical information systems (GIS) by programming STATA and R.

ECON 5750. Game Theory. (3 Credits)

In this course, we examine economic and social networks and their corresponding economic effects. We cover the measurement and common regularities of social network properties and popular models of network formation. We apply these tools to topics of interest which may include labor markets; the spread of infectious diseases; the spread of financial information; the spread of new technologies, fads, and fashions; marketing; social norms; game theory and other strategic interactions; immigration and social capital; and industrial organization.

Attributes: EDST, PSIC.

ECON 5760. Computational Macroeconomics/Finance. (3 Credits)

The aim of this course is to explore methods used to compute numerical solutions to dynamic stochastic general equilibrium (DSGE) models with applications to both macroeconomics and finance. The course begins with a rigorous exploration of numerical methods including function approximation, numerical differentiation and integration, non-linear equations, numerical optimization, and the simulation of multivariate Markov processes. Utilizing these tools, we will pursue solution methods such as perturbation methods, discrete state space methods, and parameterized expectations.

Attribute: EDST.

ECON 5771. Project Assessment. (3 Credits)

Uses the logical framework analysis frequently mandated by USAID to design a results based system to monitor and evaluate small community development projects.

Attribute: HUCB.

ECON 5808. Microfinance and Migration. (3 Credits)

Migration, access to credit (microfinance), and remittances can create employment and education opportunities for poor families, particularly women. Interdisciplinary case studies from Mexico, the Dominican Republic, the Bronx, Amsterdam, Nigeria, China, Bangladesh, and India show how race, class, and gender affect employment outcomes.

Attributes: CEED, CENS, HULI.

ECON 6010. Microeconomic Theory I. (3 Credits)

This course covers a variety of topics, including methodology, theory of consumer behavior and demand, theory of production and factor prices under varying market structures, and welfare economics.

Attribute: IPED.

ECON 6020. Macroeconomic Theory I. (3 Credits)

This course introduces students to the foundation of contemporary macroeconomics and equips them with the relevant analytic techniques for understanding advanced macroeconomic research. The first section of Macro I will be focused on tools for understanding the economy at an aggregate level. The remaining sections will apply those tools to a dynamic general equilibrium model of the economy and consider questions about economic growth. A framework for understanding basic fiscal policy in a dynamic general equilibrium context will be discussed as well. The last section of the course introduces frictions into the dynamic general equilibrium model to allow us to understand business cycles and the impact of monetary policy on unemployment and inflation.

Attributes: ASDM, IPED.

ECON 6030. Global Managerial Economics. (3 Credits)

This course focuses on the application of economic theory and decision science tools by global firms to find optimal solutions to managerial decisions problems. The topics covered are new managerial theories of organizations in the globalized world of today, as well as the theory and estimation of demand, production, and costs, and their relationship to output and prices under various market structures.

ECON 6240. Financial Economics. (3 Credits)

This course is a study of the fundamental methods and pricing techniques in financial economics. The course studies the valuation of fixed income securities, stocks, and derivative contracts. Additionally, an analysis of asset pricing and financial market structure will be covered.

Attributes: EDFI, IPED.

ECON 6310. Monetary Policy. (3 Credits)

This course covers the impact, transmission, and incidence of monetary policy, central bank control of the money supply, rational expectations, and the effectiveness of monetary policy.

Attribute: EDST.

ECON 6320. Monetary Theory. (3 Credits)

This course is designed as an advanced macroeconomics course for students interested in pursuing monetary or macroeconomics topics beyond core topics in a graduate course. The course develops a baseline, simplified, general equilibrium model with money and then considers a fully specified New Keynesian general equilibrium model. The course covers a number of traditional issues in monetary theory: price and wage rigidity as well as unemployment. It also covers recent issues: financial frictions and search frictions in the labor market.

Attribute: EDST.

ECON 6340. Financial Theory. (3 Credits)

The theory of financial decision-making, risk and risk aversion, advanced asset pricing models, and empirical regularities of financial markets will be covered in this course.

Attribute: EDFI.

Prerequisites: ECON 6710 or ECON 6700.

ECON 6440. Development Economics. (3 Credits)

The objective of this course is to provide students with an understanding of the causes and consequences of economic deprivation. In this course, the household is the major unit of analysis. The course covers topics in poverty, health, education, program evaluation (randomized control trials and selected non-experimental evaluation methods), microfinance, and the interplay between development and psychology. We will draw lessons from policy experiments in developing countries to understand what "works" and what does not.

Attributes: EDAM, IPED, PSIC.

ECON 6460. Agriculture and Development. (3 Credits)

The objective of this course is to provide students with an understanding of agricultural economics, including food security and environmental issues.

Attributes: ABGS, CEED, CENS, EDAM, HULI, IPED, PSEV, PSIC.

ECON 6470. Growth and Development. (3 Credits)

A survey of growth models and statistical evidence to determine what causes growth rate to vary among countries and over time. Topics include the source of economic growth, growth with balance of payments adjustments, capital inflows and growth, and north-south growth models. Growth models and statistical evidence are surveyed to determine what causes growth rates to vary among countries and over time. Topics include the sources of economic growth, growth with balance of payments adjustment, capital inflow and growth, and North-South growth models.

Attributes: EDST, INST, IPED, ISIN.

Prerequisites: ECON 5710 or ECON 5700.

ECON 6480. Environmental and Resource Economics. (3 Credits)

This course considers environmental protection and natural resource management as elements of international policy development and planning.

Attributes: EDAM, GSSE, HULI, IPED, PSIC.

ECON 6490. Foreign Aid and Development. (3 Credits)

This course examines the economic and political roles of foreign aid in development. Economic topics may include economic growth, agricultural development, food aid, the environment, health, education, and emergencies. Political topics may include alliance building, conflict resolution, and governance.

Attributes: CEED, CENS, GSSC, HULI, INST, IPED, ISIN, PSIC.

ECON 6510. International Trade. (3 Credits)

The objective of this course is to provide students with an understanding of various topics involving international trade, including absolute and comparative advantage; factor price equalization and important trade theorems; empirical tests of the Leontief Paradox; factor growth; technical progress in a simple, open economy; tariffs in large and small countries; effective protection; theory of second best; and theory of customs unions.

Attributes: EDST, IPED.

ECON 6530. International Economics of Growth and Development. (3 Credits)

International Economics of Growth and Development studies those aspects of development that are related to international economics. Subjects covered can include the connection between economic growth and international trade, the terms of trade and economic development, export instability and economic development, import substitution versus export promotion, international labor migration, and international capital flows.

Attribute: EDST.

ECON 6560. International Finance. (3 Credits)

The purpose of this course is to cover the various topics concerning international finance, including the balance of payments; the foreign exchange market; the nature, disturbance, and readjustments of the balance of payments; capital exports and the theory of transfer; development of international economic institutions and the world economy; flexible exchange rates; purchasing power parity; covered interest arbitrage; short-term capital movements; and the efficiency of the foreign exchange market.

Attributes: EDST, INST, IPED, ISIN.

ECON 6700. Mathematical Methods in Economics II. (3 Credits)

This course covers advanced mathematical techniques used in economics, including exponential and logarithmic functions, integration, multivariate and equality-constrained optimization, dynamic equations and systems of dynamic equations, as well as more advanced optimization techniques.

ECON 6910. Applied Econometrics. (3 Credits)

Basic techniques of econometric theory, including applications in consumer theory, theory of the firm, and in macroeconomics, as well as a review of statistical methods. Some computer work is assigned.

Attributes: DATA, IPED.

ECON 6950. Financial Econometrics. (3 Credits)

This course covers hypothesis testing and modeling with respect to financial data.

Attributes: ASDM, DATA.

ECON 6970. Applied Microeconometrics. (3 Credits)

The primary goal of the course is to improve students' ability to conduct high-level empirical research, combining economics, econometrics, and data. The course will specifically cover instrumental variables estimation, regression discontinuity, propensity score matching, control function approach, randomized control trials, static panel data models, and dynamic panel data models. The course is intended to be particularly useful for advanced Ph.D. students and master's students planning to write or currently writing a thesis. The course will mainly draw on a series of high-quality journal publications from the field of applied microeconomics that use the aforementioned applied econometric techniques for causal inference.

Attribute: EDAM.

Prerequisite: ECON 6910.

ECON 6990. Topics in Econometric Theory. (3 Credits)

The purpose of this course is to provide Ph.D. students with the econometric tools they need for dissertation work. The main topic for this course will rotate among a variety of advanced econometrics topics such as time series econometrics, nonparametric econometrics, and machine learning, among others.

Attribute: EDST.

Prerequisites: ECON 7910 and ECON 7920 (may be taken concurrently).

ECON 6999. Research in Economics Capstone. (1 Credit)

This is a required course that facilitates the writing process of the capstone research paper for students completing an M.A. program in economics. The research paper provides an opportunity to write a piece of academic work in which the student is expected to demonstrate the ability to formulate a research question, facility in the use of empirical techniques, and the ability to convey results clearly in writing.

Prerequisites: ECON 6010 and ECON 5710.

ECON 7010. Microeconomic Theory II. (3 Credits)

This course covers the foundations of contemporary microeconomic theory at the advanced graduate level. We develop an axiomatic model of static consumer choice, then add uncertainty and the ability to make trade-offs through time. We further consider the underpinnings of production and outcomes of (often strategic) interaction of firms and consumers, and limiting cases. Although all capable and interested students are welcome, the course will focus on preparing Ph.D. students for their comprehensive exam in microeconomic theory.

ECON 7020. Macroeconomic Theory II. (3 Credits)

Macroeconomics II is focused on the dynamic behavior of households, firms, and the aggregate economy. The course consists of three parts. The first part focuses on the theory of consumption behavior and savings at the individual and aggregate level. The second part of the course investigates overlapping-generations models (OLG) focusing on both endowment and production economies. Finally, the course reviews real business cycle theory and concludes by exploring some relatively recent developments in the formulation and computation of heterogeneous agent models.

Prerequisite: ECON 6020.

ECON 7910. Econometrics I. (3 Credits)

This class will begin with an exploration of the properties required to obtain causality in econometrics. We will focus largely on the theoretical properties of conditional expectations operators and basic asymptotic theory applied to ordinary least squares (OLS), two-stage least squares (2SLS), and nonlinear methods such as discrete response models.

ECON 7920. Econometrics II. (3 Credits)

This course focuses on an advanced treatment of select topics in econometrics, including sophisticated simultaneous equation estimation, asymptotic distribution theory, time series analysis, forecasting, and Bayesian inference.

Prerequisite: ECON 7910.

ECON 7995. Teaching Introductory Economics. (0 Credits)

This course is intended for graduate-student teaching fellows (TF). It provides training in all aspects of teaching introductory courses in macro and microeconomics. The faculty instructor will visit each teaching fellow's classroom to observe and offer advice on the TF's lecture style and technique. Participants in this course will meet periodically to discuss all aspects of teaching, including the preparation of a syllabus, the use of instructor software, writing and grading exams, and developing assessments.

ECON 8100. Economics Internship. (0.5 Credits)

The Economics Internship course provides Economics graduate students the opportunity to accumulate relevant professional experience and practical training that they may need.

ECON 8570. Topics in Open Economy Macroeconomics. (3 Credits)

This course continues discussion from from Ph.D. Macro II and International Finance on advanced international macro topics, such as exchange rate dynamics, international financial flows, global business cycles, and others.

Prerequisites: ECON 6560 and ECON 6020.

ECON 8600. Research and Writing in Economics. (3 Credits)

The course will aim to help students develop key skills for economics research. These skills will be imparted through lectures, discussions, presentations, and homework assignments, and as part of a research paper the students will be required to prepare and present. The course will also provide a forum for students to present and discuss ideas, literature reviews, and methodologies.

ECON 8700. Research Methods & Design. (3 Credits)

This course will aid students in developing their dissertation work and perfecting their presentation and interview skills. It will cover new software for aiding dissertation work, Latex and Beamer, and data presentation strategies. It is intended for Ph.D. students who have completed their comprehensive exams and the Research and Writing course.

Prerequisite: ECON 8600.

ECON 8999. Independent Study. (0 to 4 Credits)**ECON 9999. Dissertation Direction. (1 Credit)**