# **Course Descriptions**

#### **Strategy Courses**

### B53 MGT 603 Seminar in Strategy and Organization

This course focuses on theoretical and empirical work regarding the economics of organizations defined very broadly. Rather than focusing solely on organizational economics as it has evolved in the economics literature, this course emphasizes complementary and competing theoretical and empirical work in the organization theory and strategy literatures. The course also seeks to interpret and analyze observed organizational forms, trends, and choices using insights from the theories we examine.

# B53 MGT 604 Strategy Management of Innovation & Technology

This seminar reviews and discusses research on the strategic management of innovation and technology. The course has three goals: bring students to the knowledge frontier of research in the management of innovation in technology, develop students' ability to formulate research questions and propose feasible research methodologies, and develop students' ability to present research papers.

# B53 MGT 606 Economics of the Organization

This course seminar reviews and discusses research in organizational economics, the field that overlaps many other fields in economics, such as industrial organization, contract theory, labor economics, corporate finance, etc. Students are expected to learn how to build a simple model to explain facts and how to formulate research questions based on implications from models.

# B53 MGT 620 Empirical Methods in Business

The objectives of this course are to train PhD students in different business disciplines to understand: how to use data to address research questions, how to build econometric models that can be applied to data, and how to estimate the econometric models using some statistical packages. This course emphasizes empirical data handling and estimation issues. Prerequisites: students are expected to have basic statistical knowledge such as random variables and distributions, tests of statistical hypothesis, basic linear regression, and maximum likelihood estimation.

# B53 MGT 623 Seminar in Entrepreneurship

This course is a survey of topics that bear on entrepreneurship. The course is divided roughly into two sections; immersion (entrepreneurship statistics, history of entrepreneurship, entrepreneur biographies) and phenomena. In addition to becoming proficient in entrepreneurship theory, you will develop skills as discussants. Besides being a practical skill that will lead to conference invitations, preparing a good discussion will develop critical thinking.

# **Other Courses**

# B53 MGT 601 Doctoral Prep: University Teaching

Two (2) credits are required for the PhD. Students must provide an Olin professor 30 hours of assistance in the teaching function; which includes, but is not limited to, conducting help sessions, grading, and developing lectures or exams. Maximum of eight (8) credits allowed. Hours performed during this course do not count toward RA/TA requirements. Credits will count towards teaching requirement of the Graduate School of Arts & Science.

### B53 MGT 605 Research Internship

Three (3) credits are required for the PhD. Under the direction of a faculty member, students will work (and be graded) on their own research project. This requirement will be completed when students are at candidacy and preparing a dissertation proposal. Internship must be arranged by the student and approved by the advising faculty member. An outline of objectives must be submitted to the PhD Office prior to enrollment. An additional nine (9) credits may be taken; maximum of twelve (12) credits allowed.

## B53 MGT 610 Dissertation

Maximum of twelve (12) credits allowed, six (6) per semester. Prerequisite: submission of Title, Scope, and Procedure Form and successful Proposal of dissertation.

# B53 660 Seminar on Presentation Skills (Required for Third Year Students)

The goal of this course is to teach students the basic principles of effective research communication sufficiently early in the program, so that they have multiple opportunities to practice and hone their skills. The learning objectives are as follows: 1) demonstrate knowledge of how to organize thoughts and write research papers effectively. 2) demonstrate ability of how to design effective presentation decks for seminars and conference presentations and 3) Improve the criticial thinking that underlies research before, during, and after its completion.

#### **Core Foundation Courses**

## L11 Econ 503 Microeconomics I

The first of a two-semester graduate sequence in microeconomic theory. The courses cover the determination of relative prices and quantities exchanged of final products and factors of production. The first semester considers production and costs, supply of output and demand for inputs, demands for final products, market organization, time and capital. Fall.

#### L11 Econ 504 Microeconomics II

The second of a two-semester graduate sequence in microeconomic theory. The second semester considers the further development of individual consumer behavior, aggregated demand, general equilibrium analysis, Leontief models, consumer's surplus analysis, social choice, and expected utility analysis. Spring.

# L11 Econ 511 Quantitative Methods in Economics I

Study of those topics of mathematics of special usefulness in economic research. Selection and ordering of topics will vary with level of student preparation but will usually include the following: vectors, matrices, lines mappings; their manipulation and elementary properties; elementary topology, and elements of multidimensional calculus. Fall.

# L11 Econ 512 Quantitative Methods in Economics II

Introduction to mathematical statistics designed to provide a background for the study of econometrics. Selection of topics will usually include: probability, introduction to distribution theory, including limiting

distributions and distributions of quadratic terms, Bayes Theorem, and hypothesis testing. 3 class hours a week. Fall.

## L11 Econ 513 Introduction to Econometrics

Classical multiple regression analysis and an introduction to generalizations useful in empirical research in economics, including a framework for dealing with problems of multicollinearity, specification error, heteroskedasticity, serial and contemporaneous correlation, identification and consistent estimation in simultaneous equation models. Spring, odd years.

## L11 Econ 516 Applied Econometrics

Introduction to econometrics as it is applied in microeconomics and macroeconomics (modular). Topics related to the analysis of microeconomic data include maximum likelihood estimation and hypothesis testing; cross-section and panel data linear models and robust inference; models for discrete choice; truncation, censoring and sample selection models; and models for event counts and duration data. Topics related to the analysis of macroeconomic data include basic linear and nonlinear time series models; practical issues with likelihood-based inference; forecasting; structural identification based on timing restrictions and heteroskedasticity; and computational methods for hypothesis testing and model comparison. Prerequisite: Econ 512. Spring.

Course descriptions represent courses offered recently. Not all courses are offered every semester, and it is important to check with Olin Business School prior to scheduling classes to determine course availability for any given semester. Olin Business School reserves the right to make changes in the course offerings or descriptions.