

Minor in Finance (FNM15)

Course Description

ACCT100 PRINCIPLES OF FINANCIAL ACCOUNTING

This course is an introductory course to Financial Accounting. It covers issues related transaction analysis and the accounting cycle. It also provides specific coverage of Balance Sheet and Income Statement accounts and the accounting choices and issues concerning those accounts. Finally, it does provide an introduction to the preparation of the Statement of Cash Flows.

Pre-requisite: None

BECO100 PRINCIPLES OF MICROECONOMICS

The course enables students to understand the behavior of different economic agents in the economy and their interactions in the market. It introduces to students the patterns of different market structures and their associated impacts, enabling students to understand the role of the government and the degree of efficiency in different market structures. The course also enables students to apply basic economic theories and models to explain real world economic phenomena. The course covers the concepts of the demand, supply, their elasticity and market equilibrium. Consumer choices, production process, the costs of production and different market structures and their patterns will also be discussed in the classes.

Pre-requisite: None

BECO201 INTERMEDIATE ECONOMICS

This course covers topics on both the Macro- and Micro-economics sides at the intermediate level. On the macroeconomics side, the Keynesian IS-LM model in the close and open economy, various exchange rate regimes and their implications to the economy will be discussed. In addition, the AD-AS model will be derived and employed to perform policy analyses. On the microeconomics side, quantitative models in relation to consumer's choice, budget constraints and utility maximization will be focused. The concepts of profit maximization, cost minimization, firm's and industry's supply as well as the market structures of perfect competition, oligopoly and monopoly will also be addressed in the course. After this course, student would have a stronger quantitative background in economics. Besides, students are expected to be able to apply more sophisticated macro- and micro- economic models to conduct empirical economic analyses.

Pre-requisites: BECO100 Principles of Microeconomics AND BECO101 Principles of Macroeconomics

BECO210 ECONOMETRICS I

With the growing complexity of financial markets and their relations with the emerging economy, in-depth understanding of empirical relations postulate by economic theory is of paramount importance. This course highlights of the emergence of econometrics and its relation with finance. With a minimum level of theoretical discussion, it introduces econometric models. It focuses on the basics of econometric methods in the finance area and covers the statistical tools needed to understand (empirical) economic research, and to plan and execute independent research projects required in other quantitative subjects. Topics include statistical inference, regression, least squares, spherical error, dummy variables, panel data and non-spherical error. This course required you to have knowledge of economics, mathematics and statistics.

Pre-requisite: QMDS200 Statistics and Data Analysis

BECO311 FINANCIAL ECONOMETRICS

The unprecedented development of financial markets, complexity of financial products, their dynamic relations of the markets with households, individuals and our economy – all leads to the necessity of in-depth understanding of relations posit by economic theory. This course highlights (i) the economic theory with statistics and mathematics, (ii) the emerging, perhaps the fastest growing field of econometrics and finance. With a minimum level of theoretical discussion, we introduce econometric models. We focus on the basics of econometric methods in asset pricing, risk management and corporate finance such as volatility processes, endogeneity, microstructure of financial markets and executive compensation. We cover the statistics and mathematics in need to understand (empirical) economic research, to plan and execute independent research projects. Topics include cross-sectional regression, (non-) spherical error, time-series models and panel data regression.

Pre-requisites: BECO210 Econometrics I AND FINC210 Financial Management

BECO403 INTRODUCTION TO ECONOMETRICS

The course aims to define and analyze variables and data set for particular statistical investigation, to familiarize students with the statistical estimation and inference in linear regression model and its application to problems in economics and the social sciences. In the course, students will learn how to carryout statistical estimation, and the methods in interpreting econometric results carried out and reported by others. The

course will cover topics such as the scope and limitations of econometrics, introduction to EViews and SAS, the nature of regression analysis, the foundation of different regression models, the normality assumption of the CLRM, interval estimation and hypothesis testing, multiple regression analysis and the problems associated in different estimation methods.

Pre-requisite: QMDS200 Statistics and Data Analysis OR FINC213 Statistics for Finance OR QMDS202 Data Analysis and Modeling

ECOB320 ECONOMETRICS I

Introduces elementary econometric techniques beginning with single- and multi-variable ordinary least squares regression models. Also discussed are generalized least squares methods, the problems of heteroskedasticity and autocorrelation, and the concept of multicollinearity.

Pre-requisite: ECOB122 Statistical Analysis I and ECOB123 Statistical Analysis II

FINC210 FINANCIAL MANAGEMENT

This course introduces the basic principles of financial management. It provides students with a scientific framework for evaluating assets and investment opportunities. The course is divided into three main parts. The first part discusses about the institutional settings and the relationship among different players in the financial market. The second part focuses on the capital budgeting decision. Here, different types of investment evaluation techniques will be discussed and compared. As for the third part, the key variable of capital budgeting – the cost of capital will be given.

Pre-requisite: ACCT100 Principles of Financial Accounting

FINC211 ADVANCED FINANCIAL MANAGEMENT

This course provides students with a working ability to make financing decisions. It begins with the discussion on dividend and debt policy and how they affect a firm's value. Then, financial statement analysis and financial planning will be presented. Given the importance of the latter, both long-term and short-term planning will be discussed in greater details. While short-term planning concerns with a firm's ability to pay its bills, working capital management focuses on the credit policy, inventory and cash management of a company. Finally, special topics including mergers and acquisitions, international financial management and options will be discussed.

Pre-requisite: FINC210 Financial Management

FINC302 DERIVATIVE SECURITIES

This course is designed for senior undergraduate students to understand and price the basic derivative instruments, with major emphasis on options and futures. The course will start by introducing basic operations of these markets. Students will then apply the knowledge of mathematics of finance to the pricing of derivatives such as options, futures, and swaps. Discussions will then be extended to concepts of risk management such as Value at Risk and the Greeks of derivatives. General topics covered are pricing models, investment strategies and risk management involving the derivatives.

Pre-requisite: FINC210 Financial Management

FINC341 THEORY OF FINANCE

The course aims to provide students with solid theoretical frameworks in asset pricing, corporate finance and other areas in finance. The course will equip students with both conceptual and analytical skills necessary to advance to more specialized courses. For asset pricing, concepts of risk and return are analyzed in the context of formal pricing models such as the Capital Asset Pricing Model and the Arbitrage Pricing Theory. Aspects of efficient market theory and anomalies are considered. For corporate finance, business decisions such as capital budgeting, financing, and corporate restructurings will be covered in depth.

Pre-requisite: FINC210 Financial Management

FINC344 PORTFOLIO MANAGEMENT

This course focuses on the design and management of investment portfolios that meet the targeted investor's objectives. Both passive and active strategies are examined together with an in-depth review of pricing efficiency in securities markets and the implications for portfolio managers. Additional topics include strategies for managing security analysis and stock valuation, international diversification, and portfolio performance evaluation. The aim of this course is to help students:

- To develop an understanding of the basic principal of capital market theories.
- To develop an understanding of the nature and function of derivative instruments.
- To develop an ability to understand the linkage between the capital market theories and investment strategies.
- To develop an ability to apply the capital market theories and investment strategies in planning and administrating investment portfolios.

Pre-requisite: FINC210 Financial Management

FINC426 MERGERS AND ACQUISITIONS

This course examines various aspects of mergers and acquisitions (M&A) and corporate restructurings. It surveys the drivers of success and failure in the transactions. Issues

regarding motive and strategy will be discussed, with economic implications the main focus of discussions. Students will also apply necessary skills and tools to evaluate and form an opinion about a proposed transaction, from both the acquirer's and the target's points of view. The course will be demanding and assume ability to understand financial statements, as well as familiarity with valuation analysis.

Pre-requisite: FINC211 Advanced Financial Management

FINC427 FIXED INCOME SECURITIES

This course provides an overview of the techniques available for valuing riskless and risky fixed income securities and their derivatives. Topics include fixed income mathematics, term structure models and price sensitivity measures, securitization and fixed income portfolio management.

Pre-requisite: FINC210 Financial Management

FINC431 INTERNATIONAL FINANCE AND GLOBAL ISSUES

The objective of the course is to provide a conceptual framework within which the key financial decisions and multinational company can be analyzed. Topics include exchange rates and currency markets, international money markets, international capital markets, economic exposure measurement and management, country risk, and other global issues.

Pre-requisite: FINC210 Financial Management

FINC432 FINANCIAL MODELING

This hands-on courses focus on how to use Microsoft Excel to implement the various financial models taught in the finance programme. Topics include financial statement analysis, leasing, efficient frontier estimation, beta estimation, bond pricing and duration, option pricing, Monte Carlo simulation, Risk models such as Value at Risk (VaR). Students will also learn how to use Macro and VBA in the course.

Pre-requisites: FINC302 Derivative Securities AND FINC344 Portfolio Management

FINC433 BANK MANAGEMENT

This course focuses on the advanced techniques of commercial bank management. Topics include bank performance analysis, asset/liability management techniques, investments and liquidity management, deposits and liability management, business lending, consumer lending, loan pricing, bank regulation and capital adequacy requirements.

Pre-requisite: FINC210 Financial Management

FINC435 FINANCIAL RISK MANAGEMENT

This course will focus on the identification, quantification and management of market risk, credit risk and operational risk of financial institutions. Besides covering Value at Risk (VaR) models, the course also deals with issues such as financial regulation and capital adequacy including Basel II. Topics include volatility models, value at risk for stocks, currencies, bonds and derivatives such as futures, forwards, swaps and options; expected and unexpected loss due to credit risks, operational risk measures.

Pre-requisites: FINC302 Derivative Securities AND FINC344 Portfolio Management

FINC436 ADVANCED FINANCIAL MATHEMATICS

This course aims to introduce important ideas in theory of probability and differential equations, and their applications to mathematical finance. Topics include: Finite Probability Spaces, Continuous probability theory, the Laplace transform, the Fourier transform, the diffusion equation, measure and integration, Brownian motion, Ito's Lemma, derivation of the Black-Scholes equation.

Pre-requisite: QMDS304 Advanced Calculus

FINC437 EXOTIC OPTIONS AND STRUCTURED PRODUCTS

The first part of the course deals with non-standard options such as Asian options, asset or nothing options, binary options, barrier options, quantoes, cliquets, shout options, compound options, rainbow options. The 2nd part of the course deals with how to combine various derivatives with stocks and bonds to create structured products in order to meet the changing needs of customers.

Pre-requisite: FINC302 Derivative Securities