SME Master Programs Course Offering List

Study Plan	Course Code	Course Title	Course Pattern	Units	Brief Description	Remarks
	MDS5101	Theory of Statistics	Core Course	3	This course teaches basic theory and methodologies for probability and statistical analysis. The course covers random variable and probability distribution; data collection; graphical and numerical methods for describing data; estimation; hypothesis testing; regression analysis.	Students should be familiar with basic knowledge in Calculus, Algebra, Probability, and Statistics.
	MDS5130	Time Series Analysis	Core Course	3	This course teaches the fundamental theory and techniques for processing and analyzing time series data. The course covers descriptive techniques of time series, ARMA models, model diagnostics, heteroskedasticity and GARCH models, statistical software for time series analysis.	
	ECO6109	Applied Time Series Analysis	Elective	3	This is an econometrics course in time series methods. Topics covered include: stationary ARMA processes, dynamic modeling, univariate with unit roots, cointegration and time series models of heteroskedasticity. Empirical analyses and applications of time series method to real world data will also be provided.	

ACT5004	Information System	Pre-term	0	This course aims to emphasize the importance of the information in business entity and how information management and technologies improve the competitive advantage of the business entity. It provides students with the role of electronic commerce in today's business environment, the understanding of the nature and value of information system and information management, the process of system development, and the knowledge in information technology applications.	
ACT5002	Business Economics	Pre-term	0	This course presents an introduction to the principles of microeconomics and macroeconomics. Major topics to be taught include basic economic concepts, supply and demand; cost and production theories; competitive, oligopolistic and monopolistic market, government intervention in market economy, introductory issues to game theory and informational economics, measurement of national output and income; unemployment and inflation and other fundamental principles in microeconomics and macroeconomics.	
ACT6111	Corporate Accounting	Core Course	3	This course aims to provide students with an in-depth understanding of financial accounting. It intends to form the basis for further studies in Advanced Corporate Accounting. Topics include the conceptual framework of financial accounting, financial statements, cash and receivables, inventories, revenue recognition, property, plant and equipment, intangible assets, financial assets, liabilities, equity, pension and postretirement benefits, ratio analysis and an introduction to financial statement analysis.	

AY 2018-19 Term 1	ACT6121	Cost and Management Accounting	Core Course	3	This course covers the basics of cost and management accounting including concepts, techniques and applications. Topics include cost behaviour and classification, cost-volume-profit analysis, product and process costing, decision-making, pricing decisions, variance analysis, capital budgeting, and measuring and managing customer relationships, process performance, and strategic performance.	
	ACT6241	Data Mining and Business Analytics	Elective	3	This course introduces fundamental concepts, technologies, and applications of business analytics using Big Data. It covers the state-of-the-art topics in Big Data including data collection, data storage and processing, data mining, predictive analytics, and cloud computing.	
	FIN6103	Financial Econometrics and Financial Data Analysis	Core Course	3	This course covers econometrics used in empirical finance. Topics include univariate and multivariate linear models, time series models, parametric and nonparametric models of volatility, risk management models. The course considers applied problems in financial data analysis and makes extensive use of computer-based applications to draw inferences.	
	FIN6104	Corporate Valuation & Fundamentals of Finance	Core Course	3	This course covers the corporate use of debt and equity, dividends, financial distress, managerial incentives, and the impact of leverage on capital budgeting. This course also covers methods of calculating corporate valuation using discounted cash flow methods including application of the Weighted Average Cost of Capital to discount Free Cash Flows, Adjusted Present Value, and Flow to Equity methods. Interpretation of multiples-based valuation is also considered. Real-world applications of corporate theories will be emphasized throughout the course.	

FIN6106	Quantitative Portfolio Analysis	Core Course	3	This course introduces formal quantitative analytical concepts and tools used to manage security portfolios from perspective of an institutional investor. The following topics will be covered: market microstructure, margin purchasing, short selling, portfolio risk management, risk/return tradeoffs, strategic/tactical asset allocation, active versus passive management, portfolio revision, performance evaluation.	
FIN6109	Behavioral Finance	Elective	3	Over the past several decades, the field of finance has developed a successful paradigm based on the notions that investors and managers were generally rational and the prices of securities were generally "efficient." In recent years, however, anecdotal evidence as well as theoretical and empirical research has shown this paradigm to be insufficient to describe various features of actual financial markets. In this course we will use psychology and more realistic settings to guide and develop alternative theories of financial markets. We will examine how the insights of behavioral finance complement the traditional paradigm and shed light on investors' trading patterns, the behavior of asset prices, corporate finance, and various Wall Street institutions and practices.	
FIN6110	Stochastic Models	Elective	3	This course introduces basic techniques for modelling and analysing systems in the presence of uncertainty. It will cover probability preliminaries, Martingales, Brownian motions and applications in financial engineering.	
FIN6115	Microstructure and Algorithm Trading	Elective	3	This course introduces the foundations of securities trading and discusses market microstructure and optimal trading strategies. IT covers the nature of markets and prices, trading mechanism, market microstructure models, trading costs and optimal trading strategies and high frequency trading.	

	FIN6122	Emerging Companies Finance	Elective	3	The course covers financial topics most relevant to newly formed companies, with an emphasis on innovative startups that target large markets and raise outside capital. Includes topics on: (1) valuation, which is the course's primary theme, underlying all of the topics covered, (2) evaluating business opportunities, which focuses on the underlying economic principles that differentiate large opportunities from small opportunities, (3) funding business opportunities, which covers both identifying a company's needs and acquiring the capital to finance those needs, and (4) discussing how successful entrepreneurial ventures "exit."	