

SME Course List to Exchange - Visiting PG Students, 2024-25 Term 1

MSc in Accounting

Course Code	Course Title	Units	Prerequisites	Co-requisites	Exclusion	Course Description
ACT6111	Corporate Accounting	3	ACT5001 Accounting	No	/	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.
ACT6121	Managerial Accounting	3	No	No	/	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.
ACT6151	China Economic Law and Market Regulations	3	No	No	/	This course introduces the ethical and legal frameworks of business and explains the laws that define and govern businesses and corporations in China.
ACT6181	Financial Management	3	No	No	/	This course identifies, examines and analyses the major financial decisions made by firms in the contemporary business environment. Topics include asset valuation, investment decisions, analysis of risk, financial planning, dividend policy, working capital management, sources of long-term financing and the cost of capital, and the financial mix for firms.
ACT6201	Forensic and Forecasting Analytics	3	No	No	/	This course explores the use of financial and non-financial data for solving problems in financial accounting, managerial accounting, audit, internal control and corporate governance contexts. Students will gain exposure to different advanced data analytics techniques and predictive models such as text analytics, neural networks and deep learning to detect irregularities, anomalies and potential fraud in accounting data. Students will gain knowledge and hands-on experience in applying these techniques to make predictions by generating value from accounting data.

ACT6242	Accounting Data Strategy and Visualization	3	Have background in basic Accounting and Statistical Analysis knowledge	ACT5004 Information Management	/	The growing volume of both structured and unstructured data has pushed forward a more data-driven form of decision making. Future accountants need to be able to collect and work with data. This course aims to first introduce various accounting and financial research datasets and to provide students a number of quantitative analysis techniques in developing analytical data models to support decision-making. With the information developed from data modelling, it is crucial to communicate practical implications of quantitative analyses to any kind of audience member. This course aims to further provide an introduction as well as a hands-on experience in data visualization and visual analytics to help summarize large amount of data effectively. Students will learn to combine analytic and interactive visualization approaches and use them to demonstrate or provide insights into real-world problems and situations.
ACT6271	Corporate Governance and Social Responsibility in China	3	No	No	/	This course aims to develop a sound understanding of the underlying concepts and theories of corporate governance and corporate social responsibilities, which are both indispensable in today's business environment. It explores the use of different internal control strategies and corporate governance practices and the integration of ethics in achieving efficiency, effectiveness and economy in operations and in complying with legal, regulatory, social and corporate oversight requirements with a particular focus issues in China.
ACT6281	Financial Markets and Instruments	3	ACT6181 Financial Management	No	/	This course aims to cover the composition of financial markets, the role financial markets and institutions play in the modern business environment and the common instruments and products in financial transactions with a particular focus on the risk-neutral pricing of securities and fundamental analysis of stocks.

MSc in Economics

Course Code	Course Title	Units	Prerequisites	Co-requisites	Exclusion	Course Description
ECO6101	Advanced Microeconomics	3	No	No	/	This course provides an exposition of advanced microeconomic theory. The course covers the classical theories of consumer and producer behaviour. Topics include preference and utility representation, existence and properties of demands, expenditure functions, indirect utility, welfare evaluation, revealed preference, production sets, profit maximization, cost minimization, and duality. The course also briefly introduces a number of topics such as game theory, general equilibrium theory, and the economics of uncertainty and information.
ECO6102	Advanced Econometrics	3	Students should have a good understanding of the undergraduate level of calculus and linear algebra and some rudimentary knowledge of probability and statistics. A prior course in undergraduate econometrics would be helpful, but not required.	No	/	This course is an introductory course in econometrics at the graduate level. It covers large sample theory, estimation methods and hypotheses testing, with applications to microeconomics, macroeconomics and labour economics. The GAUSS computer program which provides Monte Carlo simulations will be introduced in the class.
ECO6105	Advanced Macroeconomics	3	No	No	/	This course is an advanced course on contemporary macroeconomic theories. It emphasizes the application of recent theoretical analysis on current macroeconomic issues of both economic fluctuations and growth. It briefly covers topics such as business cycles, economic growth and development, monetary economics and public finance.

ECO6111	Applied Econometrics	3	No	No	/	This course provides a unified framework to study the properties of popular econometric methods used in economic analysis such as least-squares, maximum likelihood and generalized method of moments estimators. Topics in this class include the applications of these popular econometric methods to cross-sectional data and time series data.
ECO6114	Public Economics and Finance	3	No	No	/	This course discusses the theory and practice of public finance, focusing on the quantitative effects of public policies. There are two parts in this course: government spending and government revenue (taxes). The course emphasizes the experience of United States public finance; students will be trained to apply sophisticated cross-section and panel data to analyse real-life economic issues and SAS/STATA programming techniques will be taught extensively throughout the course.
ECO6124	Entrepreneurial Finance and Economics	3	Basic Financial Accounting & Corporate Finance	No	/	The course examines key elements of entrepreneurial finance and economics, focusing on technology-based start-up ventures and the early stages of company development. It includes topics on: (1) valuation, which covers techniques to forecast financials, to assess financial needs, and to value new ventures; (2) venture capital and private equity, which focuses on structure of private equity markets and contracts in private equity deals; (3) capital structure of entrepreneurial ventures, which covers financing alternatives and their pros and cons; (4) harvesting, discussing methods of cashing out from a venture and their pros and cons. The course helps students gain insights into real business issues, focusing on how to make good judgements in new environments characterized by high degrees of uncertainty.
ECO6126	Machine Learning in Business and Economics	3	Students should have some exposure to intermediate economics, and undergraduate training in calculus and linear algebra. Undergraduate level of econometrics is required.	No	/	The course offers a broad introduction to modern machine learning algorithms. It provides a foundational understanding of how machine learning and statistical algorithms work. A number of classic topics in supervised learning and unsupervised learning will be covered, such as (1) linear and generalized linear models; (2) linear discriminant analysis; (3) support vector machines, boosting, and other regularized learning algorithm such as the LASSO and elastic net; (4) decision trees, k-nearest neighbors, factor analysis, principle components analysis, and naive Bayes; (5) learning theory (bias variance tradeoff). The course also discusses recent applications of machine learning, such as to image, text and web data processing, and causal inference in economics.
ECO6133	Introduction to Chinese Economy	3	No	No	/	This course helps students to understand how the market-oriented economic reform and opening since 1978 have transformed China from a closed, centrally planned, and under-developed economy into the second largest economy in the world through rapid industrialization, urbanization, internationalization, and digitalization. It examines how the role of the state and the market, the global environment, and the technology are shaping the evolving growth model of China, and the implications on future challenges. In addition to a review of historical achievements, the course will discuss a broad range of economic, social, environmental and geopolitical challenges as China strives to build a more open, innovative, inclusive, and sustainable growth model for the peace and prosperity of China and the World.

MSc in Finance						
Course Code	Course Title	Units	Prerequisites	Co-requisites	Exclusion	Course Description
FIN6101	Financial Reporting and Analysis	3	No	No	/	This course builds upon core accounting knowledge. It equips students with skills to analyze and interpret financial statement data in various industries to make informed business decisions in investment and valuation. Various models will be deployed such as Dividend Discount Model, Free Cash Flows Model, Residual Income Valuation Model, Abnormal Earnings Growth Model as well as interpretation of ratios such as P/E, P/B and PEG with real business context.
FIN6103	Financial Econometrics and Applications	3	No	No	/	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	3	No	No	/	This course will first cover the fundamentals of corporate finance, including organization forms of businesses, financial statement and cash flows, financial ratios analysis, discounting cash flows, risk and return, cost of capital, and capital budgeting. The course will then cover corporate valuation using the discounted cash flow (DCF) method, including its application in the real world. The course will also cover several special topics such as capital structure, mergers and acquisitions, dividend policy, and bankruptcy. Real - world applications of corporate theories will be emphasized throughout the course.
FIN6105	Derivatives Markets	3	Basic Knowledge of Finance; Basic Knowledge of Calculus, Probability Theory and Linear Algebra	No	/	The focus of the course is about the financial market basic instruments and derivatives (i.e. forward. Futures and options). It covers the financial market overview, fixed-income instruments, equity derivatives, foreign exchange instruments, commodities products, credit derivatives and structured products. Options hedging and pricing are analyzed under Black-Scholes-Merton model following the introduction of basic concepts of stochastic calculus. Students will implement structured pricing using simulation Monte Carlo method. The lecturer will endeavor to bridge the gap between the theory and the practice in the financial market. After the course, the students are well prepared to work in financial industry as trader, structurer, sales or risk manager.
FIN6106	Quantitative Portfolio Analysis	3	Some familiarity with finance	No	/	The course covers quantitative portfolio management techniques and strategies with hands-on computing using Python. It is specially designed for students with a career endeavor in the quantitative asset management field or systematic trading strategies. Topics will include fundamental investment concepts, classical portfolio theories, state-of-the-art smart beta strategies formulation, factors modelling and risk optimization, active portfolio management and design, dynamic hedging etc. Programming and numerical algorithm will be a focus and students are expected to learn and apply Python to real practice problems encountered widely in the industry.

FIN6116	Analysis of Fixed-income Securities	3	No	No	/	This course introduces the analytical tools and concepts needed to price fixed income securities. Topics include the pricing and hedging of bonds, inflation-indexed bonds, derivatives, and other types of fixed income securities. Emphasis will be placed on the student's ability to price these securities by appropriately discounting future cash flows for time and risk.
FIN6122	Emerging Companies Finance	3	No	No	/	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."
FIN6123	Investment Management and Analysis	3	No	No	/	This course provides an introduction to theory and practice of investment management and analysis. Major topics include risk and return, equity markets, asset allocation, portfolio optimization, factor models, and investment performance evaluation.
FIN6126	Alternative Investment	3	Investment; Financial Management	No	/	This course combines theory and practice (with most case studies drawn from Chinese capital markets) to explain alternative assets and their investment management knowledge. The course will analyze how to conduct alternative asset allocation from the perspective of institutional investment managers (such as pension funds, endowment funds, family offices, etc.). Through this course, students will learn about the returns, risks, characteristics and investment strategies of classic alternative asset such as hedge funds, private equity funds, real estate and commodities. Meanwhile, they will also understand, as institutional investors, how to allocate alternative assets properly.
FIN6127	FinTech Theory and Practice	3	No	No	IBA6309 Fintech and Applications	Financial technology (FinTech) is revolutionary and rapidly changing the financial services industries. The objective of this course is to introduce students to the theory and practice of FinTech. This course covers the applications of new technologies in financial services such as big data, blockchain, machine learning and artificial intelligence (AI). Students are expected to develop a broad understanding of the recent FinTech developments and the new forms of financial services such as peer-to-peer lending and crowdfunding, robo-advisors, InsurTech and cryptocurrencies. In addition, we will discuss the regulatory challenges and privacy concerns that emerge as part of the FinTech transformation.
FIN6130	Artificial Intelligence for FinTech	3	Previous exposure to python, calculus, linear algebra, statistics, finance and financial derivatives (23-24 Term 2)	No	/	This course provides an overview of Artificial Intelligence and machine learning applications in finance. The course topics include FinTech areas of crowdfunding, Linear Machine Learning models, deep learning, quantitative investing, the democratization of trading and investments, and etc.

FIN6132	Corporate and Business Law	3	The knowledge of basic legal terms relating to corporate law and business law is useful to achieve a better understanding in this class learning.	No	/	In this course, students will develop an understanding of the legal framework and regulatory systems which underlie all business activities, including examination of the basic structure and purpose of actual legal documentation. Moreover, it will introduce basic legal principles that regulate the corporate finance and securities markets. Further, the course will cover legal cases related to asymmetric information, moral hazard, agency problems, and bankruptcy. By completion of this course, students are exposed to the basic legal implications of commercial conduct.
FIN6140	Green Bonds and ESG Practices	3	No	No	/	The course is aimed at introducing and basic learning of the green bond products and related markets, in respect of the ESG principles, framework, policies, and finance. The course helps to gain understanding of how a green bond is designed, structured, priced and traded, and what the relevant investment characteristics are. The course also combines some basic scientific information and knowledge on climate changes and other environment issues, as well as on modern corporate ESG practices with actual case studies. The course requires some fundamental knowledge on the bond math and bond market. A good understanding of modern environmental issues and scientific backdrop is also essential.

MSc in Information Management and Business Analytics (IMBA)

Course Code	Course Title	Units	Prerequisites	Co-requisites	Exclusion	Course Description
IBA6101	Statistical Foundations for Analytics	3	Students should have good knowledge in calculus and linear algebra, as well as basic training in coding.	No	/	This course provides a comprehensive and practical introduction to statistical data analysis. Topics cover discrete and continuous probability models, estimation and testing of hypotheses, simple and multiple linear regression analysis, and so on. Throughout the course, students will learn concepts and fundamentals of statistical inference and regression analysis by studying theory, developing intuition, and working through several practical examples.
IBA6102	Machine Learning for Business	3	No	IBA6101 Statistical Foundations for Analytics, and IBA6104 Programming for Business Intelligence	/	The course offers a broad introduction to modern machine learning algorithms. It provides a foundational understanding of how machine learning and statistical algorithms work. A number of classic topics in supervised learning and unsupervised learning will be covered, such as (1) linear and generalized linear models; (2) linear discriminant analysis; (3) support vector machines, boosting, and other regularized learning algorithm such as the LASSO and elastic net; (4) decision trees, k-nearest neighbours, factor analysis, principle components analysis, and naive Bayes; (5) learning theory (bias variance trade-off). The course will also discuss recent applications of machine learning, such as to image, text and web data processing, and causal inference in business.
IBA6104	Programming for Business Intelligence	3	MSc IMBA Programme 0-unit Pre-term Courses: IBA6001 Basic Mathematics for Economists, and IBA6002 Python: Programming with a Purpose	Basic knowledge of Python. Basic knowledge of statistics and probability, some linear algebra, calculus.	/	This course highlights the importance of information in businesses, providing students with a comprehensive understanding of information management, intelligence analysis, and data visualization techniques to enhance competitiveness. Through the exploration of various programming languages and tools, students will gain essential skills in business intelligence and analytics, as well as learn the fundamentals of effective data visualization and data processing.

IBA6107	Operations Analytics	3	No	No	/	This course is an introduction to the principles and techniques of operations analytics. Topics covered include process analysis, inventory management, quality management, supply chain management. A set of quantitative and qualitative techniques will be covered to help students analyse and solve the operation problems.
IBA6151	Fundamentals of Database Management	3	No	No	/	This course introduces database management systems with emphasis on business applications. Topics covered include the different natures of data, selection and representation, use of suitable methods and tools for storing and accessing data, technical and administrative considerations in database implementation.
IBA6202	Marketing Analytics	3	No	No	/	Quantitative and analytical skills are introduced in this course to solve problems associated with data-driven marketing. Gathering, analyzing, and interpreting data about markets and customers is critical for the success of an organization. This skill is important for careers in marketing, consulting, and entrepreneurship. Students will analyze data to understand customers and inform marketing decisions, evaluate the quality and usefulness of available data, and analyse conducted by others, and communicate analysis-based conclusions to colleagues and managers.
IBA6204	Revenue Management	3	No	No	/	This course focuses on how firms should manage their pricing, and product availability policies across different selling channels in order to maximize performance and profitability. Building on a combination of lectures and case studies, the course develops a set of methodologies that students can use to identify and develop opportunities for revenue optimization in different business contexts, including transportation and hospitality industries, retail, media and entertainment, financial services, health care, manufacturing, and others. Quantitative models will be introduced to help students tackle important business problems including capacity allocation, markdown management, customized pricing, and demand forecasts under market uncertainty, and so on.
IBA6301	Online Business: Innovation and Data Intelligence	3	No	No	/	With the convenience of the Internet at our fingertips, e-commerce has grown into a huge industry and the world of business is changing rapidly beyond brick and mortar. Customers not only shop through different retail channels - in store, on the web, and through Apps on mobile devices, but also expect a consistent buying experience across these channels. This creates a host of new business models, such as online marketplaces, platforms, omni-channel retailing, and social media platforms, that require new sets of skills and concepts to manage. The objective of this course is to provide students with these necessary skills and concepts to capture the quickly evolving online business. Students will also learn how to use various tools to interact with data from different sources and formats in practice. The commercial-off-the-shelf software Big Query, Tableau and R will be used in this course.

IBA6303	Managing Service Operations	3	No	No	/	The focus of this course is to develop analytical thinking skills that will enable students contemplating careers in services to develop, evaluate and implement strategies for a wide range of organizations in the service sector. Topics include analyzing service processes using queueing models, improving service process with lean concepts, and analyzing customer behavior data and improving quality of service delivery.
IBA6309	Fintech and Applications	3	No	No	FIN6127 FinTech Theory and Practice	The objective of this course is to provide students with Fintech theory and practice. This course covers the applications of new technologies including big data, block chain, and artificial intelligence (AI) in financial services, the new forms of financial services, such as peer to peer lending and crowdfunding, cryptocurrencies, and Fintech regulations. Representatives from banks, hedge funds, and insurance companies will share recent Fintech development of their companies with the students.

MSc in Marketing

Course Code	Course Title	Units	Prerequisites	Co-requisites	Exclusion	Course Description
MKT5011	Strategic Marketing Management	3	No	No	/	Strategic marketing focuses on the concepts and processes involved in developing market-driven strategies. This course examines the marketing management concepts underlying both consumer and industrial marketing strategy and tactics. It covers major marketing decisions in a problem oriented setting, the in-depth study of general marketing management and the development of marketing plans and strategies. It illustrates how marketing management varies the marketing mix (price, product, promotion, and place) to achieve maximum consumer satisfaction. Emphasis is placed on marketing strategy (formulation and implementation) and the role of the firm vis-a-vis its various environments (socio-political-economic).
MKT5012	Marketing Research in the Digital Age	3	No	No	/	In the digital age, information abundance creates new opportunities for firms to understand and assess the outcome of their marketing strategies. The broad objective of this course is to provide a fundamental understanding of marketing research methods employed by well-managed firms. The course focuses on integrating problem formulation, research design, questionnaire construction, sampling, data collection, data analysis, AI methods in marketing to yield the most valuable information. The course also examines the proper use of statistical applications, with an emphasis on the AI application of consumer data and the interpretation and use of results.
MKT5014	Service Marketing	3	No	No	/	Much of the global economy is increasingly dominated by services. This course focuses on challenges of managing service brands and delivering quality service to customers across industry sectors. The attraction, retention, and building of strong customer relationships through quality service (and services) are all at the heart of the course content. This course considers service excellence as a corporate strategic vision and views effective service strategy from an integrative perspective that covers customers, employees, and firm operations. This course is designed to help students recognize the vital role that services play in the economy and its future as well as acquire the necessary knowledge and skills to implement quality service strategies for competitive advantage across industries.

MKT5018	Big Data Marketing Strategy	3	No	No	/	The purpose of this course is to provide students with a deep understanding of current big data approaches and marketing applications. The topics include trends of big data applications, consumer evolution in the digital age, big data insights into business, text mining and topic modeling, Web search data and Internet marketing, social network and social media marketing, mobile marketing, and data driven marketing strategy. Methodologies and techniques, including text analysis, Web crawling, logistic regression, and social network analysis, will be introduced and their business applications will be explained. This course aims to help students develop analytics skills and abilities combined with innovative business ideas to create effective big-data marketing strategies in today's marketing.
MKT6012	Communications in the Digital Age	3	No	No	/	Theoretical and practical appreciation of the role of "integrated marketing communication" (IMC) in today's business environment. IMC differs from traditional advertising and promotional practices by using data-driven communication and multiple brand touch points to reach target customers more precisely. The course focuses on using a strategic mix of advertising, sales promotion, public relations, and event marketing in the digital age.
MKT6013	Customer Relationship Management	3	MSc MKT Programme 0-unit Pre-term Course: MKT5010 Marketing Management and Statistics for Marketing	No	/	The course aims at providing participants with a basic understanding on what customer relationship management (CRM) is, why it is so important in the contemporary business world, and how it is implemented using recent information technology. In addition to the traditional lecturing method, this course will include a lot of case analyses, small group discussions, and/or presentations. Specifically, the following topics will be covered: - customer heterogeneity, - customer lifetime value, - customer dynamism, - CRM-based marketing strategies, - and one-to-one marketing. The implementation of CRM via Internet marketing, data warehouse, data mining, and database marketing will also be discussed.
MKT6019	Big Data Processing in Digital Marketing	3	Fundamental statistics, programming language, i.e., Java or Python	No	/	With the rapid development of high technology, high-volume marketing data are everywhere and booming exponentially. Currently the most important challenge for marketers is how to process the big data, dig out the valuable information from the big data, and obtain meaningful insights from the information. The purpose of this course is to provide fundamental knowledge to familiarize students with the most important information technologies used for preprocessing, analyzing the big data and concluding with managerial insights. The first half of the course introduces a brief overview of big data challenges in marketing and Apache Spark with its fundamental implementations, which is a powerful big data analytics engine. The second half of the course mainly focuses on how to tap into Apache Spark's machine learning packages to extract the useful managerial insights: three most popular methods, regression, convolutional neural network, and natural language processing are introduced. Moreover, several marketing problems in practice

MKT6033	Artificial Intelligence Applications in Marketing	3	Any undergraduate level statistics courses; Basic Python knowledge	No	/	The course will provide an overview of AI from theory to practical. Student will learn what is AI and how it can be integrated into businesses from identify marketing potential to chatbot customer communication. The course will teach students how to use AI natural language classification services to build chatbots/virtual agents across of marketing channels and touchpoints to support sales and marketing; using image recognition to tag and classify visual content to support visual listening and unlock hidden value in unstructured data using the natural language understanding to find answers, monitor trends, and surface patterns.
MKT6038	Market Intelligence and Digital Consumer	3	No	No	/	New digital technologies have fundamentally reshaped marketing theory and practice in the last decade alone. Technology has changed the modes of communication through which firms engage with consumers. Moore's law has made the storage and analysis of consumer data scalable, creating opportunities for fine-grained behavioral analytics. New monitoring tools have fostered precise and personalized customer relationship management practices. This course is about gathering, analyzing, and interpreting data about markets and customers. It has been designed for analysts and managers who will be using market intelligence, and so is intended for students wanting to go into marketing management, consulting, strategy, general management, and entrepreneurship. Students who take this class will learn about the types of digital marketing decision problems in which research information is most useful – fundamentals problems of target market selection, new product or service introduction or modification, customer retention, pricing, etc. that are crucial in the digital age. Throughout the course we will specifically stress the theory and practice of randomized experimentation, A/B testing and the importance of causal inference for marketing strategy.