

Bachelor of Business Studies (Honours) (FinTech) (Top-up)

Module description

Core Modules

Economics and Market Innovations

This module is designed to provide students with an introduction to economics with a particular focus on moving from the traditional single-sided platforms to multi-sided platforms. This module examines the role of network effects in business, where adding customers attracts new customers. Rather than adding large numbers of a single type of customer, multi-sided platforms focus on attracting different types of customers (indirect network effects). We refer to these types of businesses as multi-sided platforms or matchmakers. These businesses connect one group of customers with another group of customers and they represent some of the most successful corporations operating today, including Airbnb, Alibaba and Meta.

Critically, the conventional economic rules that apply to single-sided platforms break down when we consider the case of multi-sided platforms. The role of technology and the extent of interconnectedness will come to the fore when examining multi-sided platforms.

Digital Business

This introduces current and emerging digital business technologies and applications that are helping organisations to gain and sustain their competitive advantage in the global marketplace. Students will be learning through discussions on current and emerging digital business technologies, applications and their implications to the overall organisation strategy and society. The following topics will be covered: digital business in today's organisation, digital business and competitive advantage, digital business planning, development and project management, digital business-related ethical, social and legal issues, and emerging digital business trends.

The Future of Organisations and Work

This module will introduce you to the management of organisations. The topics covered in the module include environment and organisations, matrix structures, organisation design options – functional, organisations for international operations, organisation structure and design, product, strategy and organisations, and technology and organisations. The module provides for the blending of its theory and practice contents with the collective workplace experiences of the participants. To this end, participants will

be expected to contribute to critical reflection on their workplace experiences along with collaborative interpretation of such experiences in both classroom and study group settings. Advance preparation for classes and workshops will be an important feature, with readings and questions for reflection assigned at the commencement of the trimester.

Marketing in a Digital Era

This module will provide students with an overview of the function of marketing in a digital era. With an emphasis on digital marketing, the areas covered in the module are analytical methods used in marketing analysis, consumer and business-to-business markets, the role of marketing in society, the scope of marketing in the organisation, understanding and analysing competitors, and utilising the marketing toolkit effectively.

Operations Management

This module focuses on the study of value and supply chains integrating a company, its suppliers and its customers. Students develop in-depth knowledge of the entire flow of the end-to-end supply chain, from raw materials to finished products. Topics include capacity management, ERP systems, forecasting methods, lean/agile supply chain design, supply chain inventory management, supply chain operations reference model and the supply chain strategy.

Principles of Finance

This module covers the fundamentals of finance. The module will address issues such as why corporate finance is important and introduce the theoretical underpinnings of financial concepts. A comprehensive range of issues including the role of corporate governance and agency theory in finance, how the stock and bond markets function, pricing stocks and bonds, and capital budgeting techniques will be introduced.

Corporate and Competitive Strategy

This module addresses the central issues faced by managers when striving to ensure the long-term viability of their organisations. This module introduces students to the principles and tools of strategic analysis before applying them to the key issues in corporate and competitive strategies. We will analyse the external and internal environments of various organisations, identify the sources of the organisations' competitive advantage and explain the scope of their businesses. We will also examine

the frameworks and concepts available to managers when developing, implementing and assessing strategies.

Specialised Modules

Data Analytics for Finance

This module covers the fundamental mathematical and statistical background necessary for the understanding of financial markets. The aim of this module is to examine why and how finance professionals use data and quantitative methods. A comprehensive range of quantitative techniques are reviewed. However, the main focus is on applications in finance. The first part of the module will introduce students to the basic techniques of data analysis used by finance professionals. This will include a discussion of the main databases, a review of the key features of market data, as well as the techniques available for analysing this data. In order to develop a comprehensive understanding of financial analysis, we examine a number of key quantitative principles in the second part. Key relationships will be examined, including discounting and the time value of money. The module is concluded with an introduction to empirical relationships in finance using econometric analysis.

Introduction to Machine Learning

This module provides an accessible account of the field of machine learning, with a specific focus on applications in operational and credit risk-related problems in banking. The focus of the module is on principally important areas of application of statistical learning in the field: anti-money laundering, credit card delinquency, financial reporting fraud and the protection of vulnerable clients. The most important machine learning modelling and prediction techniques will be studied and implemented. Of critical importance, irrespective of the prediction technique deployed, is the evaluation of the performance of the model. Thus, model performance evaluation is a key conceptual and technical focus of the module. The preferred software environment for the implementation of statistical computing and graphics in this module is RapidMiner. With the explosion of "big data" problems in banking and finance, the methodologies and applications introduced in this module are in high demand in the industry.

Finance and Financial Institutions

In this module, three key areas of finance will be covered: Financial Systems, Financial Intermediaries and the Principles of Finance. Financial Systems covers the role of financial systems, nature of financial claims, structure of financial markets and comparative

financial systems. Complementing this, Financial Intermediaries and the Principles of Finance provide a broad understanding of the various aspects which impact financial systems such as banking regulations, risk management, financial securities and financial markets. The aim is to impart the importance of finance to students.

Business Analytics

Business Analytics focuses on the use of computer-based, data-oriented and mathematical, statistical techniques to help businesses operate optimally. It seeks to understand what has happened, predict what is going to happen and make optimal decisions to take advantage of that. The main techniques we consider are classification, clustering, correlation, linear programming, regression and time-series forecasting. For each technique we study, we learn how it works on paper before proceeding to software-based implementations. We also consider practical applications of these techniques, including some or all of credit risk, customer churn, employee assignment, inventory, investment, product mix, resource allocation and sales forecasting. Emphasis is placed not only on formulating and using models to obtain solutions, but on understanding case study problems, choosing the appropriate models, and interpreting and critiquing the results.

Cyber Security

This module introduces the cyber security industry and its technology. Through case studies, simulations and problem-solving activities, students will learn how to manage and evaluate cyber security technology assets and personnel, apply risk management strategies, and gain experience strategising defensive measures and attack responses in public and private organisations. Designed for future Chief Information Officers, Chief Security Officers and Information Technology Managers, students learn how to understand, evaluate and critically respond to this fast-growing industry and technology. This module adopts a broad and non-technical view of cyber security and explores novel and emerging applications of cryptographic technologies (eg. decentralised autonomous corporations and self-sovereign identities), hacking and cybercrime, advanced persistent threats, corporate espionage and critical infrastructure protection. The module approach is multidisciplinary and cuts across business and management science, computer science, criminology, political science and sociology. Readings and activities are non-technical and do not require a prior background in technology.

Elective Module

Professional Business Competencies*

This optional module is designed for business students to facilitate their personal and professional development. Students will develop an understanding of what motivates them and their strengths so that they can find fulfilment in the workplace. Students will learn about career options available to business graduates and approaches they can utilise to independently research these possibilities. Students will create a career action plan and learn how to navigate recruitment processes, gaining practical experience in CV preparation and interview techniques. Throughout this module, students will develop their employability skills, including commercial awareness, digital profile, effective business communication and teamwork.

**The elective module is optional for the completion of the Degree programme. Class commencement of the elective module is subject to a minimum student number under the discretion of Kaplan in Singapore and the University.*