



Bachelor of Science (Honours) in

**DATA SCIENCE AND
BUSINESS INTELLIGENCE** (BSC-DSBI)

數據科學及商業智能學（榮譽）理學士



數學及統計學系
DEPARTMENT OF MATHEMATICS & STATISTICS
恒生管理學院
HANG SENG MANAGEMENT COLLEGE



Dr YU Kwok Wai, Carisa
Programme Director
BSC-DSBI Programme

數據科學及商業智能學（榮譽）理學士
課程主任
余國惠博士

► MESSAGE FROM PROGRAMME DIRECTOR

In this data-driven world, every organisation needs to deal with data. The ability to generate predictive insights and new product innovations with advanced analytical tools and algorithms is of increasing importance. In addition, there is a need for business intelligence professionals who are able to manage and report existing business data in order to monitor or address various concerns within the enterprise.

As an international business and financial centre, Hong Kong serves as a bridge between China and the rest of the world. With the balanced combination and integration of studies in Data Science and Business Intelligence (DSBI) offered by our programme, well-trained DSBI professionals would contribute to the industry to sustain its leadership and enhance Hong Kong's future competitiveness.

On behalf of the staff of our BSC-DSBI programme, I warmly invite you to explore this enriching and rewarding journey with us.

課程主任的話

現代社會瞬息萬變，各行各業都需要處理大量市場數據。運用數學及統計學知識上的分析技能，協助機構作出準確的商業預測及生產創新的產品，亦變得愈來愈重要。此外，為提高企業內部監察和管理能力，機構對能夠處理商業數據的專業人才需求，亦愈趨殷切。

作為國際金融中心，香港是連接中國大陸及世界各地的橋樑。面對周邊地區的激烈競爭，香港必須加強此方面的人才培訓，以鞏固行業的領導地位，同時提升香港整體競爭力。作為全港首創、融合數據科學及商業智能學兩個領域的學士學位課程，我們有信心此課程有助培訓優秀的數據科學家和商業智能學專才，回應市場的需求，並為本港的經濟發展作出貢獻。

謹代表數據科學及商業智能學（榮譽）理學士課程全人，誠意邀請選修本課程！

► MESSAGE FROM PROGRAMME ADVISORY COMMITTEE CHAIRMAN

Data Science and Business Intelligence are often seen as two very different approaches to extract meaningful information from big data sets using statistical techniques. This innovative Programme offers students solid training in the theory and methodologies that underpin both approaches and provide a timely and useful bridge between the two perspectives, thus facilitating multiple career pathways for graduates of the Programme.

課程顧問主席的話

商業活動衍生大量市場數據與商業資訊。數據科學及商業智能學可提供不同的分析技巧及方法，幫助企業將龐大的數據轉化成有用的資訊，從而作出明智的商業決策。本課程獨特之處在於融合這兩個範疇的知識，為學生提供全面而優質的學術訓練，從而開拓多元化的就業途徑。



Prof TONG Chong Sze
MA, PhD (Cantab), CMath, CSci, FIMA
Chairman of Advisory Committee
BSC-DSBI Programme

英國劍橋大學博士、英國特許數學家、
英國特許科學家及英國數學與數學應用
學院院士
數據科學及商業智能學（榮譽）理學士
顧問主席
唐創時教授



What is DSBI? 甚麼是數據科學及商業智能學？

Data Science
數據科學

A collection of analytical skills and techniques derived from mathematics, statistics and computer science for extracting information from data.

集合數學、統計學及計算機科學的分析技能和技術，從數據中提取有用訊息。

Business Intelligence
商業智能學

The analysis, integration and presentation of information for making business decision.

分析、整合和展示商業訊息，從而作出商業決策。



Programme Overview 課程概要

- The world is data-driven and organisations of all sizes need to deal with data.
今日的世界由數據主導，企業無論規模大小都需要處理數據。
- There is an increasing demand for data scientists and business intelligence professionals to analyse and manage the ever-growing volume of business data.
各行業對數據科學家和商業智能專才的需求日益增長，期望他們能夠分析和管理的商業數據量。
- BSC-DSBI is the first degree programme in Hong Kong to integrate Data Science and Business Intelligence with a comprehensive business education to respond to market needs.
本課程為全港首創，融合「數據科學」及「商業智能學」兩個領域的知識，並提供全面的商學教育，以回應市場的需求。

SSSDP

Study Subsidy Scheme for Designated Professions/Sectors 指定專業/界別課程資助計劃

- Nurture necessary talents in support of specific industries with keen demand
培育切合本港社會及經濟需要之人才
- Provide an annual subsidy up to HK\$41,700 per student
每名學生可獲政府資助學費每學年最高四萬一千七百港元
- The subsidised undergraduate programmes are locally-accredited
受資助的本科課程皆通過本地評審

The BSC-DSBI programme is eligible under SSSDP in the discipline "Financial Technology".

本課程已獲政府選定為屬於「金融科技」界別並納入此資助計劃。

Submit application via JUPAS
必須經JUPAS申請

JUPAS Code
JSSH04



PROGRAMME INFORMATION 課程資訊

- Four-year degree programme 四年制學士學位課程
- Study at least 40 modules (120 credits)
需最少修讀40個單元（120個學分）
- Three major Study Areas: Common Core Requirement, Major Studies and Free Electives
設有三大學習範疇：共同核心科目、主修科目及選修科目。

PROGRAMME STRUCTURE 課程架構

Year 1 第一年

MAJOR STUDIES 主修科目

- Foundations of Data Science
數據科學基礎
- Probability and Statistical Theory
概率及統計論
- Business Economics 1
商業經濟學（一）
- Business Economics 2
商業經濟學（二）
- Principles of Management
管理學原理

COMMON CORE REQUIREMENT 共同核心科目

- 2 Chinese Modules
兩個中文科目
- 2 English Modules
兩個英文科目
- Introduction to Linear Algebra and Calculus
線性代數及微積分概論
- Introduction to Computer Programming
計算機程序設計導論
- Perspectives on General Education
通識概論

Year 2 第二年

MAJOR STUDIES 主修科目

- Quantitative Methods for Business Management
企業管理定量方法
- Business Regression Analysis
商業回歸分析
- Statistical Computing in Practice
電腦統計應用
- Financial Accounting
財務會計學
- Principles of Marketing
市場學原理

COMMON CORE REQUIREMENT 共同核心科目

- Applied Putonghua
應用普通話
- English for Business Communication
商業傳訊英語
- Database Management Systems
數據庫管理系統
- 2 General Education Electives
兩個通識選修科目

Year 3 第三年

MAJOR STUDIES 主修科目

- Simulation Methods for Business
商業模擬方法
- Ethics and Official Statistics
官方統計及道德概論
- Survey Sampling
抽樣調查學
- Hong Kong Business Law
香港商業法
- Financial Management
財務管理

COMMON CORE REQUIREMENT 共同核心科目

- 2 General Education Electives
兩個通識選修科目

FREE ELECTIVES 選修科目

- 3 Free Electives
三個選修科目

Year 4 第四年

MAJOR STUDIES 主修科目

- Financial Time Series for Business Intelligence
時間序列及商業智能分析
- Multivariate Analysis and Data Mining
多元數據分析及挖掘
- Data Audit and Imputation
數據審計及修補
- Business Policy and Strategy
企業政策及策略

COMMON CORE REQUIREMENT 共同核心科目

- 2 General Education Electives
兩個通識選修科目

FREE ELECTIVES 選修科目

- 2 Free Electives
兩個選修科目



Professional Recognition 專業認可

Students are provided with sufficient knowledge for achieving professional recognition, such as:

本課程教授學生充足的知識，獲取以下專業認可：

- Graduate Statistician (GradStat), Hong Kong Statistical Society 香港統計學會
- SAS Joint Certificate in Data Mining (SAS Institute Inc)



Career Prospects 就業前景

Graduates have a wide range of career options, such as:

畢業生的就業選擇眾多，例如：

- Data Scientist
數據科學家
- Statistician
統計師
- Financial Analyst
金融分析師
- Data Analyst
數據分析師
- Business Intelligence Professional
商業智能專才
- Market Researcher
市場研究員



Applied Statistics Laboratory 應用統計實驗室

The Applied Statistics Laboratory has 60 computer stations which are equipped with popular mathematical / statistical software such as MATLAB and SAS for students to practise their computing skills.

應用統計實驗室設有60台電腦，內置流行的數學或統計軟件，如MATLAB及SAS，供學生學習之用，以及練習統計和電腦的應用技能。



Internship Programme 實習計劃

More than 100 organisations participate in the internship programme.

超過100間機構參與本校的實習計劃。

Some of the Participating Organisations:

部分提供實習機會的機構：

- Census and Statistics Department
政府統計處
- Hong Kong Monetary Authority
香港金融管理局
- Bank of China (Hong Kong)
中國銀行 (香港)
- China Construction Bank (China)
中國建設銀行 (中國)
- DBS Bank (Hong Kong)
星展銀行 (香港)
- Hang Seng Bank
恒生銀行
- Big Data Architect Limited
數據架構師有限公司
- Lively Impact Technology Limited
威朋大數據集團
- Vpon Big Data Group
威朋大數據集團
- A.S. Watson Group
屈臣氏集團
- Ernst & Young
安永會計師事務所
- Pacific BMW (USA)
Pacific BMW (美國)
- Regal Hotels International
富豪國際酒店集團

Student's Sharing 學生分享



實習讓我獲得工作經驗，從中了解公司的工作環境以及相關行業的專業知識，藉此提升自己工作能力，為未來工作做好準備。

KONG Man Chung
江敏聰



Student's Sharing 學生分享

課程不單教授數據科學相關知識，還會為同學安排不同實習機會。透過在星展銀行及SAS的實習，我掌握了行業知識和技能，同時培養獨立思考能力、與人溝通的技巧及領導才能，為日後投身職場做好準備。

CHAN Hiu Ki
陳曉琪



Student's Sharing 學生分享

在恒生銀行的實習工作，令我獲取寶貴工作經驗之餘，亦加深我對銀行業的認識。此外，我在課堂上學到的知識及技能也可在工作中應用。

CHAN Hiu Tung
陳曉彤





Student Exchange Programme 學生交流計劃

Hang Seng Management College has been engaged in exchange partnership with renowned overseas institutions around the world. Students can take this opportunity to broaden their horizons and gain valuable life experience.

恒生管理學院與世界著名海外學府簽訂學生交流合作協議，藉此讓學生擴闊視野，獲得寶貴的生活經驗。

- Gordon College, USA
- Concordia University, Canada
- EDC Paris Business School, France
- University of Rouen Normandie, France
- HAAGA-HELIA University of Applied Sciences, Finland
- Laurea University of Applied Sciences, Finland
- HZ University of Applied Sciences, The Netherlands
- Pukyong National University, South Korea

Mentorship Programme 導師計劃

The mentorship programme is organised to help students to establish friendships with professional elites and provide them with a platform to increase their exposure to the industry. A group of professional elites from different industry sectors including Hang Seng Bank, Standard Chartered Bank, Ernst & Young, KPMG, JP Morgan, Accenture and government sectors, and so on are invited to become mentors. They share their valuable work and life experience as well as useful skills with our mentees. Through sharing and interacting with mentors, mentees are able to obtain firsthand career information and career prospects.

導師計劃旨在幫助學生與業界精英建立友誼，為學生提供與業界接觸的平台。本課程的導師計劃邀請來自不同行業界別的業界精英參與，包括恒生銀行、渣打銀行、安永會計師事務所、畢馬威會計師事務所、摩根大通、埃森哲和政府部門等。他們為本系學生分享寶貴的人生及工作經驗。透過與導師的分享與互動，學生能夠獲得各行業就業前景的第一手資訊。



Academic Staff Profile 學術人員

**Professor
Prof TANG Man Lai**
鄧文禮教授
Head and Associate Dean of
the School of Decision Sciences
PhD (UCLA)

**Associate Professor
Dr CHOY Siu Kai**
蔡少佳博士
Associate Head
PhD (HKBU)

**Associate Professor
Dr YU Kwok Wai, Carisa**
余國惠博士
Programme Director
PhD (PolyU)
CStat (RSS)

**Lecturer
Mr ZEL Tsz Fung, Stanley**
蕭子峯先生
Associate Programme Director
MStat (HKU)

**Assistant Professor
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朱文英博士
PhD (HKU)

**Assistant Professor
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馮穎康博士
PhD (CUHK)

**Assistant Professor
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林樹仁博士
PhD (CityU)

**Assistant Professor
Dr LEE Wing Yan, Becky**
李穎欣博士
PhD (University of Waterloo)
ASA (SOA)

**Assistant Professor
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余澤仁博士
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**Assistant Professor
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PhD (HKU)
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**Senior Lecturer
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**Senior Lecturer
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吳燕女士
MSc (South China University of
Technology)
MSc (The University of Iowa)
FSA (SOA)

**Lecturer
Dr LIU Nga Wai, William**
廖雅威博士
PhD (University of Rochester)

**Lecturer
Ms MO Yee Lam, Elaine**
毛怡琳女士
MSc (CUHK)



ENQUIRIES ON APPLICATION AND ADMISSION 入學申請查詢

Submit application via JUPAS.
必須經JUPAS 申請。

Tel 電話	: 3963 5004
Website 網頁	: https://mst.hsmc.edu.hk/en/programmes/dsbi/
Facebook	: www.facebook.com/hsmc.dsbi
Instagram	: @hsmc.dsbi
Programme Email 課程查詢	: dsbi@hsmc.edu.hk
Address 地址	: Hang Shin Link, Siu Lek Yuen, Shatin, NT 新界沙田小瀝源行善里

In case of any discrepancy between the English and Chinese versions of the contents of this pamphlet, the English version shall prevail.

本課程簡介內容以英文版本為準，中文譯本僅供參考。

Hang Seng Management College is incorporated in Hong Kong with limited liability by guarantee.

恒生管理學院是一間於香港註冊成立之擔保有限公司。

Information updated as of October 2018.

有關資料更新至2018年10月。

