SBI

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

香港恒生大學
THE HANG SENG UNIVERSITY OF HONG KONG

▶ 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.

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

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不斷上升的商業數據量。

- 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。

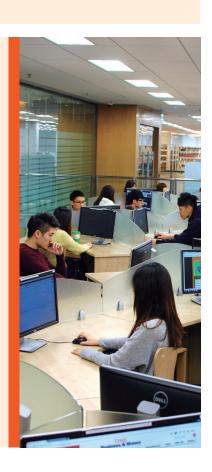# SSSDP — Study Subsidy Scheme for Designated Professions/Sectors 指定專業/界別課程資助計劃

- 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
- Principles of Economics
  經濟學原理
- 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
- Optimisation for Data Science
  優化理論
- Business Regression Analysis
  商業回歸分析
- Statistical Computing in Practice
  電腦統計應用
- Survey Sampling
  抽樣調查學
- Financial Accounting
  財務會計
- Principles of Marketing
  市場學原理
- Database Management System and Data Warehousing
  數據庫系統和管理

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

Year 3 第三年

MAJOR STUDIES 主修科目
- Simulation
  模擬方法
- Ethics and Official Statistics
  官方統計及道德概論
- Categorical Data Analysis
  類別數據分析
- Data Mining
  數據挖掘
- 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
  商業智能時間序列分析
- Data Audit and Imputation
  數據審計及修補
- Machine Learning
  機器學習
- 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

Graduate Statistician (GradStat),
Hong Kong Statistical Society 香港統計學會

SAS Joint Certificate in Data Mining,
SAS Institute Inc

SAS Joint Certificate in Machine Learning,
SAS Institute Inc

Career Prospects 就業前景

Data Scientist
數據科學家

Business Analyst
商業分析師

Statistician
統計師

Business Intelligence
Professional
商業智能專才

Data Analyst
數據分析師

Financial Analyst
金融分析師

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
- 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

CHAN Hiu Ki (Year 3)
1-year Intern
SAS Institute Limited

PONG Pak Ming (Year 3)
Actuarial Intern
Asia Insurance Company Limited

KONG Man Chung (Year 1)
Intern, Technology and Operations
DBS Bank (Hong Kong) Limited

LI Siu Ho (Year 2)
Summer Intern, Advisory-Risk Department
Ernst & Young Global Limited

MUNG Yuk Frederick (Year 3)
Professional Attachment Program,
Trade Analysis
Census and Statistics Department

CHAN Yiu Man (Year 2)
Intern, Sales & Marketing
Regal Hotels International

LEE Ho Yeung (Year 3)
Intern, Corporate Secretarial Services
TMF Hong Kong Limited

NG Chun Wah (Year 3)
Intern, Strategic Partnership
QBE Hong Kong & Shanghai Insurance Limited

IP King Wai (Year 3)
Intern, Marketing
Qupital Limited

NG Kwan Yeung (Year 3)
Fintech Intern, Digital Banking
Hang Seng Bank Limited

CHEUNG Pak Yin Patrick (Year 4)
Data Analyst, IT Department
Fujikon Industrial Holdings Limited

CHAN Wing Yu (Year 4)
Intern, Technical Department
Big Data Architect Limited

CHAN Hiu Tung (Year 3)
1-year Intern
Hang Seng Bank Limited

MAN Yan (Year 3)
AIA Internship Program
AIA Group Limited

CHEN Meiling (Year 2)
Actuarial Intern
Deloitte Touche Tohmatsu

LEUNG Wing Yan (Year 2)
HK Corporate Account Services, Technology
and Operations
DBS Bank (Hong Kong) Limited

Student Exchange Programme 學生交流計劃

The Hang Seng University of Hong Kong 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.

香港恒生大學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。

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. 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。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。

Company Visits 公司考察

Company visits provide wonderful opportunities for students to get a better understanding of what professionals in the field are doing.

公司考察提供很好的機會，讓學生加深了解該領域專業人士的工作。

SAS Institute Inc

**Census and Statistics Department
政府統計處**

Alumni Sharing 畢業生分享

The BSC-DSBI programme offers a range of courses tailored to meet the specific academic and professional goals of each student. Not only does the programme offer courses involving hot topics in data science such as Machine Learning, Data Mining, Deep Learning, it also offers a wide range of courses which provide foundations for students to apply knowledge in a complex business environment. Last but not least, the BSC-DSBI programme constantly gives students opportunities to attend seminars about updated industry information and encourages students to join internship programmes and competitions to increase exposure and competitiveness.

BSC-DSBI課程提供了一個彈性的課程範疇，讓每個學生選擇適合自己的學術和專業方向。課程不僅教授機器學習、數據挖掘、深度學習等熱門話題，它還提供廣泛的選修科目，為學生在商業環境中作好準備。最重要的是，BSC-DSBI課程不斷為學生安排行業資訊講座，並鼓勵學生多做實習和參與公開比賽，以增廣見聞和提升競爭力。

WONG Ho Laam
Data Scientist
A.S. Watson Group

The BSC-DSBI programme reveals the knowledge and insights in the data science field. The programme provides various courses on essential topics and offers opportunities to practise and apply the theories through different data projects. The programme also provides a solid foundation in business field which helps students analyse the insights for better decisions and strategies to meet the business needs and expectation. These experiences and knowledge are valuable to my personal and career development.

BSC-DSBI課程為學生揭示數據科學領域的知識和見解。課程包括了各類學術科目，並通過不同的數據專題研習，將理論應用於各個商業範疇。BSC-DSBI課程還在商業領域提供了堅實的基礎，讓學生能夠分析策略和作出商業決定，以滿足商業需要。這些經驗和知識對個人發展和將來事業都有莫大裨益。

KONG Man Chung
Business Analyst
DBS Bank (Hong Kong) Limited

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

The Hang Seng University of Hong Kong is incorporated in Hong Kong with limited liability by guarantee.
香港恒生大學是一間於香港註冊成立之擔保有限公司。

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