



數學、統計及保險學系  
DEPARTMENT OF MATHEMATICS,  
STATISTICS AND INSURANCE  
香港恒生大學  
THE HANG SENG UNIVERSITY  
OF HONG KONG



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



## 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
- All local students, including both year-1 entrants and year-3 entrants, are entitled to an annual SSSDP subsidy of HK\$46,780, tenable for the normal duration of the programme  
每名一年級或三年級入學之本地學生在課程的正常修業期間可獲政府資助學費每學年四萬六千七百八十港元
- 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 has been selected under SSSDP of the Education Bureau in the discipline "Financial Technology".

本課程已獲納入教育局的指定專業/界別課程資助計劃，屬於「金融科技」的範疇。



JUPAS Code JSSH04

## PROGRAMME STRUCTURE 課程架構

BSc-DSBI programme consists of 41 modules (120 credits), including the following compulsory courses:

數據科學及商業智能學（榮譽）理學士學位課程包含41個單元科目(120個學分)，其中包括以下必修科目：

Year

1

第一年

### MAJOR STUDIES 主修科目

- Foundations of Data Science  
數據科學基礎
- Principles of Economics  
經濟學原理
- Principles of Management  
管理學原理
- Probability and Statistical Theory  
概率及統計論
- Programming for Data Science  
數據科學程式設計

### 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
- Perspectives on General Education  
通識概論

Year

2

第二年

### MAJOR STUDIES 主修科目

- Database Management System and Data Warehousing  
數據庫系統和管理
- Financial Accounting  
財務會計
- Mathematics for Actuarial Studies and Insurance  
精算及保險應用數學
- Optimisation for Data Science  
優化理論
- Principles of Marketing  
市場學原理
- Statistical Computing in Practice  
電腦統計應用
- Survey Sampling  
抽樣調查學

### COMMON CORE REQUIREMENT 共同核心科目

- Applied Putonghua  
應用普通話
- English for Academic Purposes  
學術英語
- 2 General Education Electives  
兩個通識選修科目

Year

3

第三年

### MAJOR STUDIES 主修科目

- Business Regression Analysis  
商業回歸分析
- Categorical Data Analysis  
類別數據分析
- Data Mining 數據挖掘
- Ethics and Official Statistics  
官方統計及道德概論
- Investment and Risk Analysis  
投資及風險分析
- Simulation 模擬方法
- Statistical Inference 推斷統計學

### COMMON CORE REQUIREMENT 共同核心科目

- English for Professional Communication  
專業英語傳意
- 1 General Education Electives  
一個通識選修科目

### FREE ELECTIVES 選修科目

- 1 Free Electives  
一個選修科目

Year

4

第四年

### MAJOR STUDIES 主修科目

- Data Audit and Imputation  
數據審計及修補
- Financial Time Series for Business Intelligence  
商業智能時間序列分析
- Machine Learning I  
機器學習 I
- Machine Learning II  
機器學習 II

### COMMON CORE REQUIREMENT 共同核心科目

- 3 General Education Electives  
三個通識選修科目

### 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：

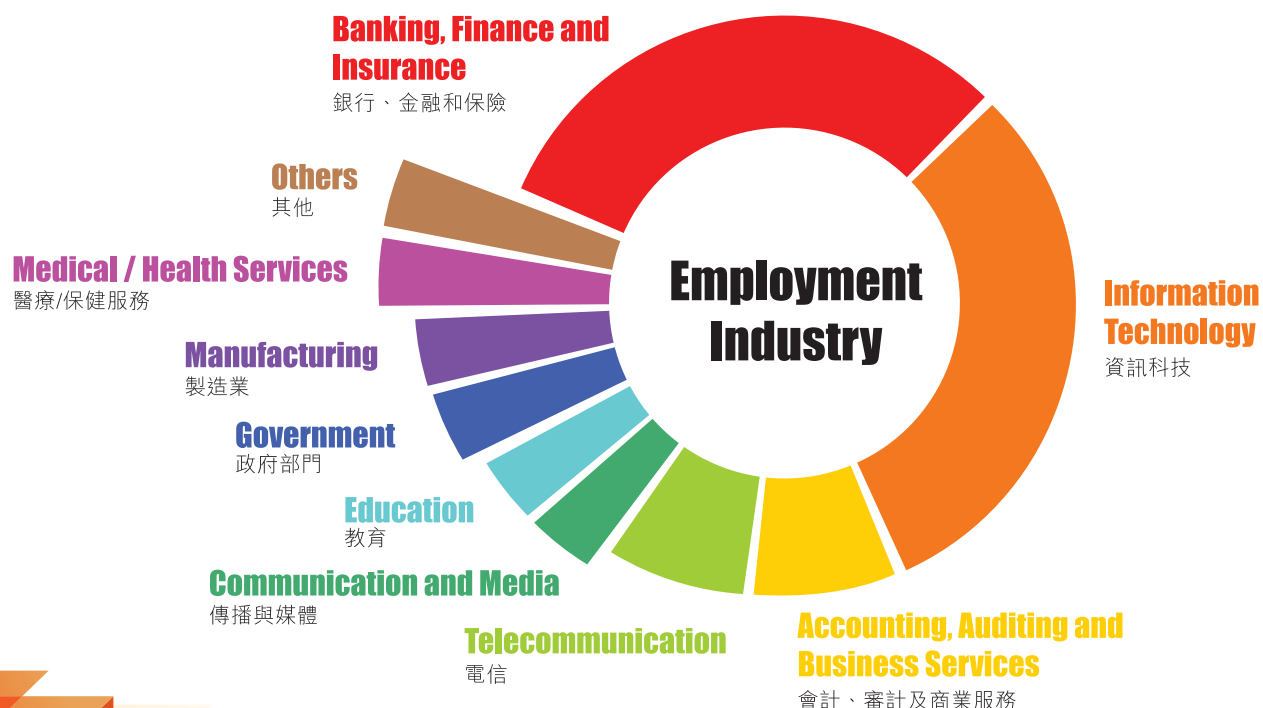
- Graduate Statistician (GradStat), Hong Kong Statistical Society 香港統計學會
- SAS Joint Certificate in Data Mining, SAS Institute Inc
- SAS Joint Certificate in Machine Learning, SAS Institute Inc

## 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：



## GRADUATE EMPLOYMENT SECTORS 畢業生就業分佈



# 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
- AXA  
安盛



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



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



**LAM Cham Yin Jocelyn (Year 3)**  
Professional Attachment Programme,  
Data Analysis  
Hong Kong Census and Statistics Department



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



**CHAU Kei Lam (Year 3)**  
Summer Intern,  
Information Technology Department  
Office of the Government Chief  
Information Officer



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



**KU Sin Sheung (Year 3)**  
IT System Intern  
Infocan Computer (Hong Kong) Limited



**KWOK Pui Wing (Year 3)**  
Data Analysis Intern, Human Resources  
A.S. Watson Group



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



**LEE Jimmy (Year 4)**  
Intern, Data Solution Team  
Vpon HK Limited



**LAM Chun Kai (Year 3)**  
Intern, Cultural Enterprise Business  
New World Development  
Company Limited



**CHEUNG Wai Ying (Year 3)**  
Summer Intern, Digital Team  
AXA Hong Kong



**CHEN Meiling (Year 2)**  
Actuarial Intern  
Deloitte Touche Tohmatsu



**CHEN Yu Ting (Year 1)**  
Singapore Oversea Intern, Career Consulting  
BestTop Consulting Pte. Limited

## STUDENT EXCHANGE PROGRAMME AND STUDY TOURS

### 學生交流計劃及遊學團

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 Modeler  
HSBC



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. It 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  
Data Scientist  
Hang Seng Bank

Joining the BSc-DSBI program was a fantastic experience for me. Through the comprehensive curriculum, I could build strong data science fundamentals and learn advanced data mining and machine learning techniques. On this journey, my professors and the BSc-DSBI office gave me crucial advice and tremendous support, which was essential to allow me to complete my degree in 3 years. The program opens multiple opportunities to different industries, and fortunately, I was able to enter the finance industry.

對我來說，修讀BSc-DSBI課程是一個奇妙的經歷。通過綜合、全面的課程結構，我奠下了穩健的數據科學基礎，並從中學習先進的數據挖掘和機器學習技術。在這段學習旅程中，BSc-DSBI全體教職員給予我重要的建議和巨大的支持，這對我在3年內完成學位至關重要。這課程為學生畢業出路提供了多種機會進入不同行業，我亦很幸運能夠進入金融行業。

WU Brandon  
Securities & Derivatives Representative  
Citi



## STUDENT ACHIEVEMENTS 學生成就

The BSc-DSBI Programme encourages students to participate in different kinds of competitions to increase their exposure and gain hands-on experience.

BSc-DSBI課程致力鼓勵學生參加各項比賽，以增廣見聞及獲得實戰經驗。



EY Open Science Data Challenge 2024 - Champion  
安永開放科學數據挑戰賽 2024冠軍



The 8th Hong Kong University Student Innovation and Entrepreneurship Competition - Third Prize in Social Enterprise /Cultural & Creative Services  
第8屆香港大學生創新及創業大賽- 社企/文化創意三等獎



## ENQUIRIES ON APPLICATION AND ADMISSION 入學申請查詢

Local HKDSE candidates should apply for admission to SSSDP programmes through Joint University Programmes Admissions Scheme (JUPAS). Other applicants should submit their applications through the HSUHK Undergraduate Application System. For further enquiries, please contact the Registry.

本地香港中學文憑考試考生必須透過大學聯合招生辦法（聯招），報讀指定專業 / 界別課程資助計劃的學士學位課程。其餘申請人可透過恒大大網上入學申請系統遞交申請。如有進一步查詢，請聯絡本校教務處。

Tel 電話 : 3963 5004  
Website 網頁 : <https://msi.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](mailto: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

**HKCAAVQ Qualifications Register**  
香港學術及職業資歷評審局資歷名冊

QF Level 資歷架構級別: 5

QR Registration No. 資歷名冊登記號碼:  
18/000850/L5

Registration Validity Period 登記有效期:  
08/11/2018 to 31/08/2029

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。

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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有關資料更新至2024年10月。

