

# CUHK MSC DSBS

## M.Sc. in Data Science and Business Statistics



香港中文大學統計學系  
**Department of Statistics**  
THE CHINESE UNIVERSITY OF HONG KONG

## M.SC. IN DATA SCIENCE AND BUSINESS STATISTICS

ENHANCE BUSINESS ADVANTAGES  
WITH DATA ANALYTIC SKILL & KNOWLEDGE

Data Science is an integrated science which incorporates knowledge from the fields of statistics, mathematics and computer science to develop the necessary skills to find unseen pattern, derive meaningful information and make business decisions. The programme provides fundamental knowledge and computing techniques required for data scientists. It is designed for students with non-statistics background. We impart data analytic knowledge and provide quantitative training to our students. We also invite experts to share their insights on the latest advancements in the field.



### A PIONEER OF HIGHER EDUCATION

The M.Sc. in Data Science and Business Statistics programme offered by the Department of Statistics at the Chinese University of Hong Kong was launched in 2004 and has been well received by the public. Graduates are equipped with advanced statistical techniques that allow them to play a significant role in the industry.

## CURRICULUM

Students are required to complete three core courses and at least five elective courses

### Core Courses



STAT5101 Foundations of Data Science

STAT5102 Regression in Practice

STAT5106 Programming Techniques for Data Science

### Elective Courses

STAT5103 High-dimensional Data Analysis

STAT5104 Data Mining

STAT5105 Applied Survival Data Analysis

STAT5107 Discrete Data Analytics

STAT6104 Financial Time Series

STAT6105 Basic Actuarial Principles and Their Applications

STAT6106 Applied Bayesian Methods

STAT6107 Selected Topics on Data Science and Business Statistics

STAT6108 Official Statistics and Structural Equation Modelling

RMSC5101 Statistical Methods in Risk Management and Finance

RMSC6001 Interest Rates and Fixed Incomes Risk Management

RMSC6004 Special Topics in Risk Management

RMSC6005 Special Topics in Quantitative Finance

Course descriptions are available  
at Department website:  
[www.dsbs.cuhk.edu.hk](http://www.dsbs.cuhk.edu.hk)



This course has been included in the list of reimbursable courses under the Continuing Education Fund.

This course/ The mother course (Master of Science in Data Science and Business Statistics) of this module is recognized under the Qualifications Framework (QF Level 6).





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## Schedule and Period of Study

The programme is offered on a part-time basis. Students who take two courses each term can complete their studies in two years. Each course consists of a three-hour lecture each week throughout a term of 14 weeks. Classes are held on weekday evenings or Saturdays in CUHK campus.

## Assessment

There is no comprehensive examination for the programme. Students shall be assessed on the basis of their performance in the courses they enroll. Criteria for assessment may include any combination of the following: assignments, mid-term, examination, class work, project or any other specified criteria.

## Other University Requirements

- Students must fulfill the Term Assessment Requirement of the Graduate School. For details, please refer to Section 13.0 “Unsatisfactory Performance and Discontinuation of Studies” of the General Regulations Governing Postgraduate Studies which can be accessed from the Graduate School Homepage ([www.gs.cuhk.edu.hk](http://www.gs.cuhk.edu.hk))
- Students must achieve a cumulative GPA of at least 2.0

## Tuition Fee for 2024-25 admission

\$85,800 per annum for two years

# A D M I S S I O N S

## Requirements

Applicants shall have:

- Graduated from a recognized university and obtained a bachelor's degree, normally with honours not lower than Second Class or achieving an average grade of not lower than “B”; and
- Fulfilled the University's minimum English language requirements for admission to postgraduate programmes (more information at [www.gs.cuhk.edu.hk](http://www.gs.cuhk.edu.hk))

## Procedures

Applicants shall have:

- Submit an online application at Graduate School website: [www.gs.cuhk.edu.hk](http://www.gs.cuhk.edu.hk)
- Upload scanned copies of the following supporting documents to the online application system. Supporting documents required are:
  - a. Copy of certificates of academic / professional qualifications
  - b. Official transcripts and grading schemes of all tertiary level studies
  - c. Proof of English language proficiency
  - d. Copy of HKID card or other identity document
  - e. Two confidential recommendation letters (submitted by referees online)

## Deadline

Priority round: 31 December 2023  
Final round: 28 February 2024

Applications will be processed on a rolling basis until all places have been filled. Early applications are strongly suggested.



**Adco Leung**  
(class of 2020)  
HSBC



Thank you, CUHK, for this excellent programme on the essential topics of statistics and practical skills for data analysis. I can now confidently construct robust models that maximise signals from datasets. The emphasis on R programming was very valuable because it showed me how to efficiently handle huge datasets and create powerful charts for data visualisation. I recommend this course to anyone interested in learning about data analytics and acquiring a “statistical mindset”, which is critical in our information age.



**Vigor Fung**  
(class of 2020)  
Industry Lead,  
Google Cloud



The DSBS programme was a great way to expand my knowledge of both theoretical and real-life practical skills in sampling, data analysis and computing while working full-time in the big data field, where I develop data-driven methodologies and use both structured and unstructured data to help enterprises succeed in digital transformation. The programme includes all-round classes from finance, economics and social statistics by experienced and funny professors who always keep you energised in after-work classes.

Luck happens when preparation meets opportunity. Thanks to this programme, it helped me start a new chapter in my career!



**Clare Liu**  
(class of 2021)  
Data Science Specialist,  
Accenture



The DSBS programme helped me build a strong foundation in data analysis, including essential statistics concepts, data science modelling, coding and financial knowledge. For example, after completing the Regression Model course, I have a deeper understanding of how the logistic regression model works, enabling me to share my knowledge with my teammates at work. This programme is also an excellent opportunity for students to learn from professors and classmates by working on various data-related projects because it encourages all classmates to come up with thoughts, ideas and execution methods. Thank you to the professors, tutors and teaching staff for all the support and guidance.



**Henry Ngai**  
(class of 2018)  
Statistician,  
Census and Statistics  
Department,  
HKSAR Government



Statistics is a process of making discoveries, decisions and predictions based on data. In this big data era, statistics permeates almost every part of our lives. A solid foundation and understanding of statistics is crucial. The well-designed DSBS programme equips students with advanced knowledge in statistical theory and its application. The knowledge and hands-on experience from this programme are extremely useful and practical to my work in C&SD, which involves extensive imputation and estimation. Thanks to the world-class professors and teaching staff, I had a fulfilling and rewarding study at CUHK. If you want to gain knowledge in the field of statistics and data science, the DSBS programme is exactly what you need.



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