Data Science at City University of Hong Kong

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www.cityu.edu.hk/sdsc

IN-DEMAND DATA SCIENCE CAREERS

- Business Intelligence Analyst
- Consultant
- Data Analyst
- Data Engineer
- Data Scientist
- Financial Quantitative Analyst

ARE NEEDED IN ALMOST EVERY FIELD

- Academia
- Finance & Banking
- Government
- Healthcare
- IT companies
- New Media / Social Media
- Retail & Marketing
- Transportation & Logistics
- Law
- Consultancy
- Social Work

STUDENT LIFE

The School provides student exchange and internship opportunities to our students to gain international perspectives, global engagement and industry experience.

Students may choose between the overseas student exchange opportunities at world-leading institutions provided by the School or the University. Paying the tuition at CityU, students will spend a study semester abroad and may transfer the academic credits earned at the host institution to fulfil the graduation requirement.

The School also partners with premier corporates in a wide range of sectors to offer internship opportunities relevant to our majors. With these placements, students are expected to gain practical knowledge and hands-on experience in real-world applications.

I strongly welcome these programmes as they provide graduates of professional training in data science disciplines to fulfil-up such soaring demand of talents locally and internationally.

Dr. Hua Xiang
Senior Manager, Wealth Lending Risk, Global and Asia WPB Risk, HSBC

Dr. James Lei
Senior Director, Artificial Intelligence and Big Data Analytics, ASTRI

SCHOOL OF DATA SCIENCE

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City University of Hong Kong offers two unique undergraduate programmes aimed at nurturing and developing students to become data science professionals who are able to discover applicable knowledge to support social and economic development in Hong Kong and beyond.

**WHAT IS DATA SCIENCE?**

Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from data. It employs techniques and theories within the context of mathematics, statistics, and computer science. It can add value to businesses by utilizing their data. Data science aims to help solve many important problems ranging from smart city to management and finance.

**WHY STUDY DATA SCIENCE?**

Recently, businesses and industries powered by data science experience a sharp growth. Various companies and organizations in Hong Kong and beyond are developing their own data analytics units. Numerous start-ups and incubation firms focus their attention on data science. Data science has become one of the most popular and promising careers nowadays.

As the trend is to pursue big data analytics and data-driven care, data science has a unique advantage in shaping healthcare systems and biomedical research in the 21st century.

Dr. Gary TSE
Senior Executive Officer, Hospital Authority

Dr. Ernest LO
Founder and CEO, Future Impact Lab Ltd.

**SCHOOL OF DATA SCIENCE (JS1071)**

**(Options: BSc Data Science, BSc Data and Systems Engineering*)**

Data Science focuses on solving problems and advancing societies using vast amounts of data. Students of JS1071 will have a free choice of majors (BSc Data Science or BSc Data and Systems Engineering) after one year of study.

**WHY US?**

The first School of Data Science in Hong Kong and the region

Ranked 48th in the world

QS World University Rankings 2021

 Ranked 4th among the world’s top universities founded in the last 50 years

QS Top 50 Under 50

Ranked 1st in the "Most International University*

(Times Higher Education (THE) World University Rankings 2020)

We need Data Science talents to help shape a Smarter Hong Kong.

Dr. Gary TSE  
Senior Executive Officer; Hospital Authority

Dr. Ernest LO  
Founder and CEO, Future Impact Lab Ltd.

**CURRICULUM**

Data Science Project

Apply your knowledge and showcase your data science capabilities

Major Elective Courses

Freedom to follow your own path and interests

*You may make use of the free electives to gain domain knowledge in specific areas or even enrich your studies with a minor

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| **Data Science Courses**                 | **Data Science Deep**                                     |
|  - Data Mining                           |  - The programme provides essential trainings like       |
|  - Convex Optimization                   |  - quantitative knowledge, statistics, data mining       |
|  - Statistical Methods and Data Analysis |  - technology and computing tools for emerging real-      |
|                                           |  - world applications.                                    |

| **General Education Courses**            | **Bachelor of Science Data Science (JS1072)**             |
|  - University and school required courses to build up the foundation |  - Data Science DEEP                                      |
|  - Calculus                              |  - The programme provides essential trainings like       |
|  - English and Chinese                   |  - quantitative knowledge, statistics, data mining       |
|  - Computer Programming                  |  - technology and computing tools for emerging real-      |
|  - Database Systems                      |  - world applications.                                    |
|  - Probability and Statistics            |  - There are three flexible modules of advanced knowledge:|
|                                           |  - Artificial Intelligence (AI)                           |
|                                           |  - Social Media Analytics                                 |
|                                           |  - Statistical Learning                                  |

*Retrieved from Bachelor of Engineering Data and Systems Engineering (subject to approval)