STUDENT LIFE

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

Student 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 SDSC-privileged internship opportunities to our students. With these placements, students are expected to gain practical knowledge and hands-on experience in real-world applications. To date, the School has set up internship arrangements with close to 20 companies.

NEEDED IN ALMOST EVERY FIELD

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

IN-DEMAND DATA SCIENCE CAREERS

- Business Intelligence Analyst
- Consultant
- Data Analyst
- Data Engineer
- Data Scientist
- Database Developer
- Financial Quantitative Analyst
- Machine Learning Engineer
- Statistician
- Marketing Analyst

From now on, knowledge in data science will be essential to every sector, just like language skill.

Dr. Lucas Hui
Chief Technology Officer, ASTRI

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

Dr. Hua XIANG
Head of Development and Commercialization,
The Laboratory for AI-Powered Financial Technologies Ltd.

SCHOOL OF DATA SCIENCE

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School of Data Science
香港城市大學
City University of Hong Kong

Data Science

at City University of Hong Kong

JOIN US NOW!

www.cityu.edu.hk/sdsc

WE PROVIDE
DATA SCIENCE PROGRAMMES

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 energy on data science. Data science has become one of the most popular and promising careers nowadays.

> Data science is the most valuable subject in modern business such as logistics, e-commerce, advertising, medicine, etc., just as oil in traditional industry.
>
> ***Mr. Zhuoluo YANG***
> *Director of SF Express Big Data Platform Research Center*

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?

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

53 **Ranked 53th in the world**
[QS World University Rankings 2022]

4 **Ranked 4th among the world's top universities founded in the last 50 years**
[QS Top 50 Under 50]

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

Bachelor of Science Data Science (JS1072)	Bachelor of Science Data and Systems Engineering (JS1074)
Specialization Modules *Become an expert in* ・Statistical Learning ・Artificial Intelligence (AI) ・Social Media Analytics	**Specialization Courses** *Become an expert in* ・FinTech ・Industrial AI ・Smart City ・Internet of Things (IoT)
Advanced Courses ・Cloud Computing ・Data Structures ・Digital Trace Analytics ・Machine Learning ・Computational Statistics ・Deep Learning	**Advanced Courses** ・Decision Analytics and Risk Management ・Quality Technologies ・Operations Research ・Financial Engineering and Analytics ・Reliability Engineering ・Engineering Economics

Data Science Courses
Fundamental courses to start your study in data science

・Data Mining
・Convex Optimization
・Statistical Methods and Data Analysis
・Data Visualization
・Artificial Intelligence
・Fundamentals of Machine Learning
・Python for Data Science
・Introduction to Data Science

Gateway Education Courses
Required courses to build up the foundation

・Calculus
・English and Chinese
・Linear Algebra
・Computer Programming
・Database Systems
・Probability and Statistics

This figure shows the basic structure of our two programmes. It is subject to change.

Bachelor of Science
Data Science (JS1072)

Data Science DEEP

The programme provides essential trainings like quantitative knowledge, statistics, data mining technology and computing tools for emerging real-world applications.

In an inter-professional setting, students are given the tools to build **theoretical and methodological knowledge** in data science, communication skills and ethic awareness. **There are three flexible modules of advanced knowledge:**

・Artificial Intelligence (AI)
・Social Media Analytics
・Statistical Learning

Bachelor of Science
Data and Systems Engineering (JS1074)

Data Science PLUS

The programme offers solid foundation in data science and intelligent systems, where students will learn to analyse, manage and improve enterprise-class systems using big data. Graduates will be equipped with necessary tools and skills to **solve emerging real-world application problems** and become big data professionals in the following fields:

・FinTech
・Industrial AI
・Internet of Things (IoT)
・Smart City