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 full-up such soaring demand of talents locally and internationally.

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

There is a great demand in the market for technologies and talents in the field of data science ranging from financial application, smart city, mobile commerce, to AI-machine learning, robotics, healthcare, education, and communications.

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

SCHOOL OF DATA SCIENCE

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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.

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?

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

48. Ranked in the world
   [QS World University Rankings 2021]

4. Ranked among the world’s top universities founded in the last 50 years
   [QS Top 50 Under 50]

1. 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

**SCHOOL OF DATA SCIENCE (JS1071)**

**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 in Data Science (JS1072)**

**Specialization Modules**

Become an expert in
- Statistical Learning
- Artificial Intelligence (AI)
- Social Media Analytics

**Advanced Courses**

- Cloud Computing
- Data Structures
- Digital Trace Analytics
- Machine Learning
- Computational Statistics
- Deep Learning

**Data Science Courses**

Fundamental courses to start your study in data science
- Data Mining
- Convex Optimization
- Statistical Methods and Data Analysis
- Machine Learning
- Data Visualization
- Artificial Intelligence
- Introduction to Data Science
- Fundamentals of Machine Learning

**General Education Courses**

University and school required courses to build up the foundation
- Calculus
- Linear Algebra
- English and Chinese
- Computer Programming
- Database Systems
- Probability and Statistics

**Major Elective Courses**

*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 in Data and Systems Engineering (JS1073)**

**Specialization Courses**

Become an expert in
- Smart City
- Internet of Things (IoT)
- Systems Analytics

**Advanced Courses**

- Decision Analytics and Risk Management
- Quality Technologies
- Operations Research
- Financial Engineering and Analytics
- Reliability Engineering
- Engineering Economics

**Data Science DEEP**

The programme provides essential training 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

**Data Science PLUS**

The programme offers solid foundation in data science and intelligent systems, where students will learn to analyze, 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:
- Systems Analytics
- Internet of Things (IoT)
- Smart City