



香港城市大學
City University of Hong Kong

專業 創新 胸懷全球
Professional · Creative
For The World

MASTER OF SCIENCE IN COMPUTER SCIENCE

Department of Computer Science

PROGRAMME CODE: P53

Early application is strongly encouraged. Applications normally start in mid-November and are processed on a rolling basis. Review of applications will start before the deadline and finish as soon as all places are filled.

For application deadline, tuition fees and other information, refer to the following Website.

<http://www.cityu.edu.hk/pg/programme/P53>

Department of Computer Science

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MASTER OF SCIENCE IN COMPUTER SCIENCE (P53)

DEPARTMENT OF COMPUTER SCIENCE | CITY UNIVERSITY OF HONG KONG

PROGRAMME AIMS

The Master of Science in Computer Science (MSCS) programme aims to (1) enable computer professionals to strengthen and upgrade their technical capabilities in computer software development, (2) broaden students' knowledge and deepen their understanding of key issues of specific areas in computer science, including artificial intelligence, data science, information security, multimedia, and other related contemporary technologies, and (3) prepare graduates to take up research and advanced innovative development work in the industry or pursue higher research studies.

CURRICULUM

To be awarded the Master of Science in Computer Science degree, a student must acquire a minimum of **30 credit units**, composed of:

9 credit units from core courses **21 credit units from elective courses***

*at least 3 credit units from those in Group I

Up to 9 credit units can be transferred based on the student's previous study.

NORMAL STUDY PERIOD

1 year for full-time / 2 years for part-time

MAXIMUM STUDY PERIOD

2.5 years for full-time / 5 years for part-time

Students may freely choose elective courses without concentration, or choose elective courses to concentrate on a study stream:

DATA SCIENCE STREAM	INFORMATION SECURITY STREAM
Stream Core (choose all two courses)	
<ul style="list-style-type: none">• Big Data Algorithms and Techniques• Data Warehousing and Data Mining	<ul style="list-style-type: none">• Information Security for eCommerce• Information Security Technology Management
Stream Elective (choose at least one)	
<ul style="list-style-type: none">• Algorithms & Techniques for Web Searching• Cloud Computing: Theory and Practice• Guided Study †• Machine Learning	<ul style="list-style-type: none">• Cryptography: Theory and Practice• Guided Study †• Privacy-enhancing Technologies• Topics on Information Security

† Guided Study is both a Data Science Stream Elective and an Information Security Stream Elective

Each course is worth 3 credit units except Project which is worth 6 credit units.

Core Courses (9 credit units)

• Computer Networks and Internets • Data Engineering • Software Engineering

Elective Courses (21 credit units)

Group I (at least 3 credit units)

Algorithms & Techniques for Web Searching
Computer Games Design 🎮
Guided Study
Machine Learning
Machine Learning: Algorithms and Applications#
Natural Language Processing#
Privacy-enhancing Technologies
Project (6 credit units)
Topics in Machine Learning
Topics on Information Security
Vision and Language
Virtual Reality Technologies and Applications

Group II

Artificial Intelligence#
Big Data Algorithms and Techniques
Cloud Computing: Theory and Practice
Computer Graphics
Cryptography: Theory and Practice
Data Warehousing and Data Mining
Information Security for eCommerce
Information Security Technology Management
Intelligent Systems
Introduction to eCommerce 🎮
Multimedia Technologies and Applications
Practical Optimization Algorithms and Techniques
Software Quality Engineering
Virtual Reality and Game-Engine Technologies 🎮
Vision and Image

Note: Courses offered in each semester are subject to actual student enrolment, staff availability and other considerations.

Subject to approval

🎮 Reimbursable courses for Continuing Education Fund purposes. Eligible applicants (Hong Kong adult residents) will be reimbursed 80% of the course fee, subject to a maximum sum of HK\$10,000, on successful completion of the course.
Enquiries: 3142 2777 Website: <http://www.wfsfaa.gov.hk/cef>

POSTGRADUATE DIPLOMA IN COMPUTER SCIENCE

The Postgraduate Diploma in Computer Science is an intermediate award which a student may obtain after the completion of 24 credit units (including all core courses and at least 3 credit units of elective courses in Group I) with satisfactory results if the student decides not to continue with the MSCS Programme.

Student Loan

Successful local applicants are eligible to apply for the Government's Non-means-tested Loan Scheme. Application forms are obtainable from each District Office and the Student Finance Office of the Hong Kong Government. Enquiries: 2150 6223 Website: <http://www.wfsfaa.gov.hk/sfo>

ENTRANCE REQUIREMENTS

UNIVERSITY ENTRANCE REQUIREMENTS



Applicants for admission to the University's Postgraduate Certificate, Postgraduate Diploma or Taught Master's Degree programmes must:

- hold a bachelor's degree from one of the universities in Hong Kong or from an overseas institution recognised for this purpose by the University; or
- hold such other qualifications as deemed acceptable by the University as equivalent to the above.

PROGRAMME ENTRANCE REQUIREMENTS

A recognised bachelor's degree in a computing discipline such as

- Computer Studies
- Information Technology
- Computer Engineering
- Information Systems

OR

A recognised bachelor's degree in a related discipline such as

- Electronic Engineering
- Applied Mathematics
- Manufacturing Engineering
- Quantitative Analysis

together with applicable working experience in information technology

ENGLISH PROFICIENCY REQUIREMENTS

Applicants whose entrance qualification is obtained from an institution where the medium of instruction is not English should also fulfill the following:

✔ TOEFL

A score of **550** (paper-based test), or **59** (revised paper-delivered test), or **79** (Internet-based test)

OR

✔ IELTS

An overall band score of **6.5** in International English Language Testing System (IELTS)

OR

✔ CET-6

A score of **450** in the new College English Test Band 6 (CET-6) of Chinese mainland, or a pass in the old CET-6 test

✔ OR other equivalent qualifications

For more details, please refer to <http://www.cs.cityu.edu.hk/academic/mscs>