

PROGRAMME CODE

P53



Department of Computer Science

香港城市大學
City University of Hong Kong

MASTER OF SCIENCE IN COMPUTER SCIENCE

- ✓ **Rich curriculum:** Many elective courses in high demand and in diverse areas to choose from.
- ✓ **Duration:** May graduate within one year full-time.
- ✓ **Concentration:** May choose to graduate *without concentration*, OR optionally *with concentration* on one of the three streams: **artificial intelligence (AI)**, **data science (DS)**, or **information security (IS)**.
- ✓ **Innovation and Research:** May choose to take *Guided Study* and/or *Project* elective courses for in-depth study of a self-chosen topic in preparation for taking up advanced innovative development work in the industry or further pursuit of higher research studies.

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

Early application is strongly encouraged. Applications 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.

<https://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

- (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.
- (3) Prepare graduates to take up research and advanced innovative development work in the industry or pursue higher research studies.

CURRICULUM

Each course is worth 3 credit units except CS6520 Project which is worth 6 credit units.

$$9 \text{ credit units from required courses} + x \text{ credit units (} x \geq 3 \text{) Group I electives} + (21-x) \text{ credit units from Group II electives} = 30 \text{ total credit units TO GRADUATE}$$

ELECTIVES

NO STREAM

21 credit units from any electives

ARTIFICIAL INTELLIGENCE AI STREAM

3 credit units from AI stream core

≥ 9 credit units from AI stream electives

≤ 3 credit units (at most 1 course) from each of the other 2 streams

Non-stream course(s)

DATA SCIENCE DS STREAM

≥ 12 credit units from DS stream electives

≤ 3 credit units (at most 1 course) from each of the other 2 streams

Non-stream course(s)

INFORMATION SECURITY IS STREAM

≥ 12 credit units from IS stream electives

≤ 3 credit units (at most 1 course) from each of the other 2 streams

Non-stream course(s)

*For details of Master of Science in Computer Science (MScS) curriculum and full list of electives, including Group I and Group II electives, refer to <https://www.cs.cityu.edu.hk/academic/mscs/curriculum/structures.html>

SAMPLE FULL-TIME STUDY PLAN

PROJECT WITH NO STREAM

SEMESTER A

CS5222

CS5351

CS5481

CS5491

CS6534

SEMESTER B

CS5188

CS5483

CS5489

CS6520 (6 credit units)

SEMESTER B + SUMMER TERM

REQUIRED COURSES

- CS5222 Computer Networks and Internets
- CS5351 Software Engineering
- CS5481 Data Engineering

SAMPLE ELECTIVE COURSES#

- CS5182 Computer Graphics
 - CS5187 Vision and Image
 - CS5188 Virtual Reality Technologies and Applications
 - CS5285 Information Security for eCommerce
 - CS5294 Information Security Technology Management
 - CS5483 Data Warehousing and Data Mining
 - CS5486 Intelligent Systems
 - CS5487 Machine Learning: Principles and Practice
 - CS5488 Big Data Algorithms and Techniques
 - CS5489 Machine Learning: Algorithms and Applications
 - CS5491 Artificial Intelligence (AI stream core)
 - CS6290 Privacy-enhancing Technologies
 - CS6520 Project (6 credit units)
 - CS6534 Guided Study
 - CS6535 Guided Study in Artificial Intelligence
 - CS6536 Guided Study in Data Science
 - CS6537 Guided Study in Information Security
- Non-Stream Electives ● AI Stream Core/Electives
● DS Stream Electives ● IS Stream Electives

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

SAMPLE FULL-TIME STUDY PLAN

INFORMATION SECURITY STREAM

SEMESTER A

CS5222

CS5351

CS5481

CS5285

CS5294

SEMESTER B

CS5182

CS5187

CS5483

CS6290

CS6537

SAMPLE PART-TIME STUDY PLAN

ARTIFICIAL INTELLIGENCE STREAM

YEAR 1 SEMESTER A

CS5222

CS5481

CS5491

CS5182

CS5489

YEAR 2 SEMESTER A

CS5351

CS5486

CS5487

CS5187

CS5188

YEAR 1 SEMESTER B

YEAR 2 SEMESTER B

STUDY PERIOD

Full-time

Normal
Maximum

1 YEAR
2.5 YEARS

Part-time

Normal
Maximum

2 YEARS
5 YEARS