

香港中文大學 The Chinese University of Hong Kong

# Master of Science / Postgraduate Diploma in Financial Technology

(Full-time / Part-time) 2024-25

## **Online Application**

Graduate School at https://www.gs.cuhk.edu.hk/admissions/

## MSc/PgD Application Deadlines

First round: 9 October 2023Second round: 20 November 2023Third round: 27 December 2023Fourth round: 19 February 2024



## Contact Us

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# Introduction

Financial Technology (FinTech), an emerging industry that enhances convenience and efficiency in financial activities through adoption of data-oriented and smart technologies, is bringing revolution to the financial service sector.

The development of innovations such as virtual bank and blockchain technology opens up a new era of financial digitization which drives up the demand for FinTech talents in Hong Kong. Backed by the Faculty of Engineering experts, this programme aims to nurture the next generation of FinTech professionals who are technologically adept and business savvy who can offer innovative solutions to finance-related industries and thus, to secure and strengthen our lead in financial services in Asia and the world.

The MSc programme emphasizes practical skills and industrial training. Students can enrich their experience by working on real-life projects under co-supervision of academic staff and industrial supervisors, or being an intern in financial institutions or FinTech companies referred or approved by the programme.

Upon completion of the programme, graduates should have acquired advanced knowledge and practical skills in financial technologies. They will be well suited for jobs demanding strong technical skills in finance-related industries including banking, insurance, asset management, internet finance, FinTech start-ups and government regulatory agencies.

# **Programme Features**

## **Career-Oriented Curriculum**

Provides three tracks for fulfilment of coursework requirements.

## 1) Course Track 2) Practicum Track\* 3) Industrial Project Track\*

## Internship (for Practicum Track)\*

- Attend workshops delivered by regulatory authorities (e.g. The Hong Kong Monetary Authority, Securities and Futures Commission, and Insurance Authority)
- Complete a 12-week placement at selected financial institutions or FinTech companies referred/approved by the Programme

## Industrial Projects (for Industrial Project Track)\*

Conduct significant research and/or development project in any area of financial technologies. Projects will be co-supervised by CUHK academic staff and industrial supervisors from sponsoring organisations under coordination of CEFAR Academy.

## Wide Range of Electives

Electives are categorised into "Technology-Oriented Electives", "Business/Application-Oriented Electives" and "Enrichment Training" to direct students towards their career aspirations.

## Mentorship

Interactions with industrial leaders and practitioners through arranged activities, e.g. seminars and company visits, etc.

## Entrepreneurship and Pitching

- FinTech and high-tech company visits
   Meeting start-up entrepreneurs
   Pitching to angels and investors
- \* applicable to Master of Science Programme only

## **Programme Structure**

MSc Programme: Students are required to take at least 24 credits for graduation — 3 required courses and 5 elective courses. Students are given flexibility to replace the elective(s) by Internship or Industrial Project according to the chosen track.

PgD: Students are required to take 15 credits for graduation – 2 required courses and 3 elective courses. PgD FinTech students who graduated with CGPA 3.0 or above would be eligible to be considered for pursuing the MSc FinTech Programme and can apply for course and unit exemption for up to 12 units and with tuition reduction.

# Course List

#### **Required Courses**

FINA6122	Financial Markets and Instruments	FTEC5520	Applied Blockchain and Cryptocurrencies
FTEC5510	Advanced Financial Infrastructure		
Elective Courses			
ACCT6141	Accounting Data Analytics and Business	FTEC5580	Data Analytics for Financial Technology
	Intelligence	FTEC5590	Robotic Process Automation (RPA)
CMSC5741	Big Data Technology and Applications	FTEC5610	Computational Finance
CMSC5743	Efficient Computing of Deep Neural Networks	FTEC5910	Financial Technology Project I*
DSME6751	Database and Big Data Management	FTEC5920	Financial Technology Project II*
DSME6756	Business Intelligence Techniques and Applications	IEMS5710	Cryptography, Information Security and
ECLT5720	Electronic Payments Systems		Privacy
ENGG5108	Big Data Analytics	IEMS5730	Big Data Systems and Information Processing
FINA6250	Fundamentals of Derivatives Trading Strategies	IERG5310	Security & Privacy in Cyber Systems
FTEC4006	Internet Finance	IERG5320	Digital Forensics
FTEC5530	Quantitative and Algorithmic Trading	IERG5350	Reinforcement Learning
FTEC5540	Financial Technology Internship*	SEEM5730	Information Technology Management
FTEC5550	Elements of RegTech for the Financial Market	SEEM5820	Introduction to Financial Engineering
FTEC5560	Topics in Financial Technology Innovations	SEEM5840	Quantitative Risk Management
FTEC5570	Financial Technology Entrepreneurship		

Course list will be updated according to the addition, deletion and revision of the courses as proposed by the course offering units.

\* applicable to MSc Programme only.

#### **Admission Requirements**

In addition to the General Requirements and the English Language Requirements of the Graduate School, applicants should preferably have:

 good knowledge of mathematics (such as calculus, linear algebra and probability) and proficiency in at least one modern programming language (such as C, C++, Java or Python) as shown in academic transcript(s).

(Note: PgD Applicants are required to provide supporting documents (eg. certificate(s) course/project infomation, etc.) if relevant subject knowledge could not be evidenced by the academic transcript(s)).

- obtained a Bachelor's degree in Engineering, Science, Mathematics or Finance/Business-related discipline from a recognized university or equivalent professional qualifications.
- relevant job experience would be favourably considered.

#### Medium of Instruction English

#### Credits required for Graduation

• 24 credits for MSc • 15 credits for PgD

#### Study mode

MSc Full time : 1 year (max. 2 years) Part time : 2 years (max. 4 years)

PgD Full time & Part time: 1 year (max. 2 years)

#### Tuition fee

MSc : HK\$340,000 PgD : HK\$170,000

Programme Director Prof. Chun Kwong CHAN

#### **Application Procedures**

Prospective applicants can obtain information at http://www.gs.cuhk.edu.hk/admissions/ admissions/how-to-apply

## Scholarship (applicable to Master of Science Programme only)

## Admission Scholarship

All students from reputable universities with top academic results will automatically be considered by the selection panel for the scholarship.

- Scholarship Amount: HK\$80,000
- Quota: 8 in each academic year

## Academic Achievement Scholarship

Students who are on the Dean's List at the time of graduation will be awarded.

Scholarship Amount: HK\$15,000

#### Scholarship

FinTecubator is a bank-wide innovation programme of Hang Seng Bank. This scholarship is donated by Hang Seng Bank Limited. It is exclusive for the students of MSc Programme in Financial Technology, Faculty of Engineering, CUHK who have completed the FinTech Project I & II (FTEC5910 & FTEC5920) or FinTech Internship (FTEC5540) offered by Hang Seng Bank in the same academic year, with a minimum course grade attainment of B or above.

The applicants are required to attend an interview conducted in English by a panel of judges. In addition, applicants should have attained a Cumulative GPA of 3.3 or above by completion of at least two terms of studies of the programme.

- Scholarship Amount: HK\$50,000
- Quota: subject to the sponsor's consideration per academic year

# Continuing Education Fund (CEF)



The following course is CEF recognized\*:

## Advanced Financial Infrastructure (FTEC5510)

\* The course has been included in the list of reimbursable courses under the Continuing Education Fund. The mother course (Master of Science in Financial Technology / Postgraduate Diploma in Financial Technology) of this module is recognized under the Qualifications Framework (QF Level[6]).

For details of the application, please visit our website: https://fintech.erg.cuhk.edu.hk/.

Strategic Partners









Industrial Project



Manulife 宏利

**Deloitte**.

Supporting Organizations:

HONG KONG MONETARY AUTHORITY 香港金融管理局



**Coordination Unit:**