CUHK

RMDA

M.Sc. in Risk Management Science and Data Analytics



香港中文大學統計與數據科學系
Department of Statistics and Data Science
THE CHINESE UNIVERSITY OF HONG KONG

CUHK MSC

RMDA M.Sc. in Risk Management Science and Data Analytics

OPEN HORIZON, ON THE MOST UP-TO-DATE LANDSCAPE IN THE FIELD.

Risk management is an important subject in both the financial and public sectors. A successful risk management system incorporates expert knowledge from the fields of mathematics, statistics, actuarial science, finance, computing and engineering. This synergy of interdisciplinary knowledge distinguishes risk management from more traditional subjects.

The Risk Management Science programmes offered by the Department of Statistics at the Chinese University of Hong Kong have played leading roles in the development of the risk management discipline in Hong Kong. The highly successful Master of Science Programme in Risk Management Science was launched in 2003 and has been well received by the public. The programme was renamed MSc in Risk Management Science and Data Analytics in 2021-22 to reflect the new elements of the evolving field of data analytics. Graduates are equipped with state-of-the-art risk management expertise that will allow them to play a leading role in the industry.



A PIONEER OF HIGHER EDUCATION

CUHK is one of the top 50 universities in the world according to QS World University Rankings 2025 and Times Higher Education Rankings 2025.

QS WORLD UNIVERSITY RANKINGS

THE WORLD UNIVERSITY RANKINGS

CURRICULUM

Core Courses

Students have to complete 4 core courses:

RMSC5001	Advanced Statistical Theory in Risk Management
RMSC5002	Principles of Risk Management
RMSC5003	Risk Measures
RMSC5004	Cases for Risk Management in Practice

Elective Courses

Minimum of 4 electives from the following to graduate:

Course descriptions are available at Department website: www.rmda.cuhk.edu.hk/programme-overview/

RMSC5101	Statistical Methods in Risk Management and Finance
RMSC5102	Simulation Techniques in Risk Management and Finance
RMSC6001	Interest Rates and Fixed Incomes Risk Management
RMSC6002	Credit Risk Management
RMSC6003	Risk Management in Financial Institutions
RMSC6007	Risk and Financial Data Analytics with Python
RMSC6008	Practicum (for full-time students)
STAT5103	High-Dimensional Data Analysis
STAT5105	Applied Survival Data Analysis
STAT6104	Financial Time Series
STAT6105	Basic Actuarial Principles and Their Applications
STAT6204	Advanced Time Series
STAT6209	Special Topics in Statistics

持續進修基金 Continuing Education Fund

CONTINUING EDUCATION FUND (CEF)

RMSC5003 Risk Measures
CEF Course Code 33Z117715

RMS5102 Simulation Techniques in Risk Management and Finance
CEF Course Code 33Z124703

These two courses have been included in the list of reimbursable courses under the Continuing Education Fund.

The mother programme (Master of Science in Risk Management Science and Data Analytics) of these courses is recognized under the Qualifications Framework (QF Level 6).

QR Registration No.: 21/000433/L6
Validity Period: On-going

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GARP

The M.Sc. in Risk Management Science and Data Analytics programme is an Academic Partner of the Global Association of Risk Professionals (GARP).

GARP is very pleased to announce the addition of The Chinese University of Hong Kong to the GARP Partnership for Risk Education. The M.Sc. in Risk Management Science offered by the Faculty of Science is a highly rigorous program. The curriculum offered is interdisciplinary in its approach, and provides its students a solid grounding in mathematics, finance, statistics etc., ensuring they will be well positioned to pursue the FRM designation and to assume strategic roles within the global risk management profession.

Dr. Chris Donohue
Managing Director
Head of Research & Educational Programs, GARP

FRM Scholarship
The programme is an Academic Partner of the Global Association of Risk Professionals (GARP). FRM scholarships will be awarded to selected full-time students. The exam registration fee for FRM Part I Exam will be waived.

Course Exemption
Students who passed FRM level 1 exam are eligible for exemption of core course RMSC5002.

CAREER SUPPORT

The programme provides students with a range of career services such as CV writing workshop and recruitment talks to support their career development.



Our NVIDIA Deep Learning Institute (DLI) University Ambassador gave Nvidia workshops on the topics of deep learning and accelerated data science. In the workshops, students will be provided with dedicated access to a fully configured, GPU accelerated server in the cloud. Students who complete a workshop will receive an electronic NVIDIA DLI certificate.

UNLEASH YOUR POTENTIAL

Our graduates are well equipped with the skills and knowledge to excel in roles such as risk management, credit analysis, structured finance, sales and trading, consultancy, operations, general management and so on. Some of the affiliations of our students and alumni are,

- American Express
- Bank of Canada
- Bank of China
- Bank of Communications
- Bank of East Asia
- Bloomberg L.P.
- BOCHK Asset Management Limited
- Census and Statistics Department, HKSAR Government
- China CITIC Bank
- China Construction Bank
- Cigna Hong Kong
- Citigroup
- CNCBI Investment Holdings Limited
- Credit Agricole CIB
- Dah Sing Bank
- DBS Bank
- Deloitte
- Deutsche Bank AG
- Ernst & Young
- Haitong International Securities Limited
- Hang Seng Bank
- HKEX
- Home Affairs Department, HKSAR Government
- Hong Kong Monetary Authority
- HSBC
- J.P. Morgan
- KPMG
- Macquarie Group Limited
- Magnum Research Limited
- Morgan Stanley
- Ping An Bank
- PWC
- Sumitomo Mitsui Banking Corporation
- Taipei Fubon Commercial Bank
- The Hong Kong Jockey Club
- The Hong Kong Mortgage Corporation Limited
- YF Life Insurance International Limited

SCHEDULE AND PERIOD OF STUDY

Each course consists of a three-hour lecture each week throughout a term of 14 weeks. Classes are held on weekday evenings and Saturdays in CUHK campus.

Full-time mode: one year

Part-time mode: two years

ADMISSION REQUIREMENTS

- hold a Bachelor's degree with Second Honours Class or above in Business, Science, Finance, Economics, Engineering or related disciplines; and
- fulfill the English language requirements for admission to postgraduate programmes (more information at Graduate School website www.gs.cuhk.edu.hk); and
- preferably possess knowledge of Business, Economics and/or Finance though not compulsory.

TUITION FEE

The tuition fee for 2027/28 admission
Part-time Mode: HKD 101,000 per annum
Full-time Mode: HKD 202,000 per annum

SCHOLARSHIPS

Admission scholarships will be provided to outstanding candidates with excellent admission credentials, career achievements, professional skills and/ or interview performance.



Loo Long Hui

(class of 2022)
Director, Risk Consulting,
KPMG Advisory (HK)
Limited

"The programme brings together course participants from various disciplines, ranging from risk management practitioners and data and information technology specialists to finance professionals and academics. This provides a unique opportunity to exchange ideas and individual experiences while further exploring risk assessment concepts and methodologies. The delivery format of the course encourages debates on various topics through open-floor Q&A on group projects and sharing different perspectives from fellow participants and industry risk management representatives, providing practical examples of linking academic theory to actual implementation. The constantly evolving curriculum also motivates participants to keep abreast with the latest regulatory and risk management developments, which is invaluable throughout our professional careers."



Ivy Qin

(class of 2021)
Business Analyst,
NumeriX LLC

"I currently work for a Fintech company, where my job needs me to dig into different models and their applications in financial derivatives. The courses in the programme helped me a lot in exploring other models and methods in the industry. For example, RMSC5101 (Statistical Methods in Risk Management and Finance) and RMSC5102 (Simulation Techniques in Risk Management and Finance) helped me to learn simulation techniques and methodologies. RMSC5002 (Principles of Risk Management) and RMSC5003 (Risk Measures) improved my understanding of real-world risk-controlling principles and tools. Group-based projects also built and strengthened the relationships between classmates. Professors and staff are helpful and kind. The learning atmosphere definitely makes this programme enjoyable."



Calvin Yeung

(class of 2022)
PhD studies in Informatics,
Nagoya University

"The MSc in RMDA programme has given me a thorough understanding of the subject. Despite my prior knowledge of risk management and statistics, this programme significantly enriched my understanding. With various courses available, I can select courses that suit my abilities and interests. Furthermore, the programming and data science knowledge I have acquired along the way will benefit my future machine learning research.

In my experience, the professors, teaching assistants and staff are keen to assist their students. Additionally, with a flexible arrangement, the needs of students and challenges under the pandemic were dealt with effectively and efficiently."



Franco Leung

Guest Lecturer
Director,
Market Outreach,
S&P Global Ratings

"It is my honour to teach students in the MSc in Risk Management Science and Data Analytics (RMDA) programme at CUHK and share my over 20 years of experience in credit analysis, corporate rating and research, corporate treasury, fixed income markets, risk governance and portfolio risk management.

The RMDA programme offers dynamic, diverse and applicable courses to prepare students from all walks of life to contribute to society and advance their careers. It is current in terms of the market, including AI and machine learning in Fintech and common risk management tools used in corporates and the financial industry in general. The skills and knowledge that the students acquire from this programme are therefore very helpful in the rapidly evolving financial sector and the fast-changing world. Students not only learn and understand a wide range of risks and their associated quantifications but also learn how to manage and take measured risks. I believe they are better equipped to manage various international business cycles over the long-term."

CUHK MSC RMDA

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