Department of Applied Mathematics

Taught Postgraduate Programmes

2025/26 Admission

Open for Applications

Upskill for a Data-Driven Age

Unlock Limitless Opportunities with AMA Postgraduate Programmes

In a world inundated with information, the ability to gather, analyze, and interpret data has become a highly sought-after skill. By enrolling in our postgraduate programmes in Applied Mathematics, you will gain the expertise and advanced skills to master the power of data and drive your career to new heights!

Read on….

Master of Science in Applied Mathematics for Science and Technology - Actuarial and Investment Science

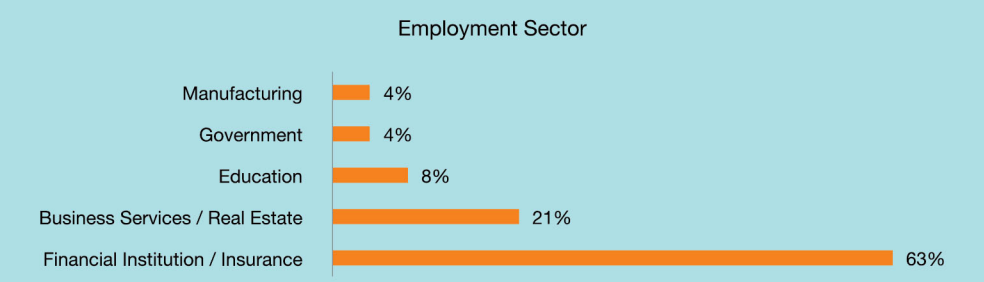## 科技應用數學理學碩士學位－精算及投資科學

This programme provides mathematical modelling and computational thinking skills. It covers a wide array of topics in statistics, insurance, financial mathematics and decision making which would facilitate career development of engineers, scientists, and managers. The curriculum is well designed to cover the wide topics in statistics, insurance, financial mathematics and decision making, which are essential in the training of our students with a solid foundation as professionals in insurance, investment, finance and engineering.

Career Prospects

We aim to groom leading professionals in engineering, finance management, banking and finance, insurance company and related sectors. Many of our graduates secured internship/ job positions in leading insurance companies and investment banks as actuaries and data analysts in both Hong Kong and Mainland China.

Graduate Employment Statistics (2023)

Employment Sector

Sector	Percentage
Manufacturing	4%
Government	4%
Education	8%
Business Services / Real Estate	21%
Financial Institution / Insurance	63%

Programme code	63022
Normal duration	2 years
Mode of study	Full time
Programme structure	6 compulsory subjects, and 4 elective subjects or a dissertation plus 1 elective subject
Credit required for graduation	31 credits
Tuition fee	HKD 9,400 per credit
Entrance requirement	A Bachelor's degree with Honours in Engineering, Computer Science, Basic Science, Business, Economics, or the equivalent (industrial or business experience will be an asset)
English requirement	For non-native English applicants and whose first degree qualifications are not obtained through the English medium, they are required to obtain one of the following qualifications taken within a 2-year period: • A score of 80 or above in the Test of English as a Foreign Language (TOEFL) Internet-based test • An overall Band Score of at least 6 in the International English Language Testing System (IELTS)
Enquiry	msc.ds.ais@polyu.edu.hk

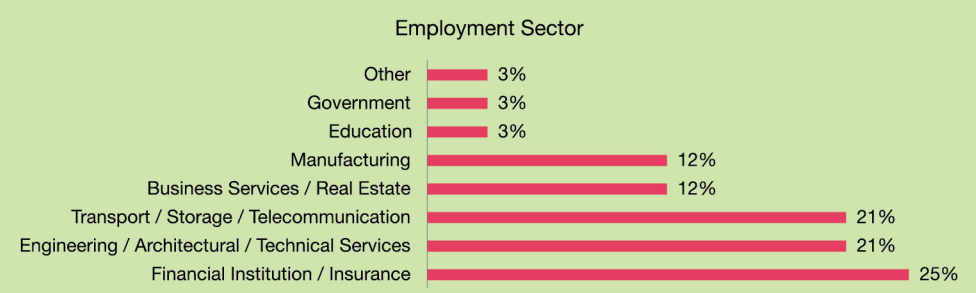# Master of Science in Data Science and Analytics^

數據科學及分析理學碩士學位^

Data Science and Analytics concerns the use of mathematical, statistical and computing techniques to extract useful information out of large-scale data and make decision out of it. It is widely recognized that Statistics, Optimization methods and Computer Science form the three pillars for modern Data Science. This programme is designed to provide a balanced treatment on these three pillars, with an aim of grooming future data analysts.

Career Prospects

We aim to train graduates with an expertise that cuts across core disciplines of mathematics, statistics and computer science. It develops students' analytical and critical thinking, as well as problem-solving skills. This will enable the students to pursue careers as data analysts in various industries such as finance and information technology.

Graduate Employment Statistics (2023)

Employment Sector

Sector	Percentage
Other	3%
Government	3%
Education	3%
Manufacturing	12%
Business Services / Real Estate	12%
Transport / Storage / Telecommunication	21%
Engineering / Architectural / Technical Services	21%
Financial Institution / Insurance	25%

Programme code	62027	
Normal duration	1.5 years	3 years
Mode of study	Full time*	Part time
Programme structure	6 compulsory subjects and 4 elective subjects; OR 6 compulsory subjects, 1 elective subject and a dissertation	
Credit required for graduation	31 credits	
Tuition fee	HKD 12,000 per credit	
Entrance requirement	Bachelor's degree with honours in Mathematics, Statistics, Computer Science, IT, Engineering, and Science, or the equivalent. Applicants with a Bachelor's degree in other disciplines and an adequate background in mathematics or IT will also be considered.	
English requirement	For applicants who are not native English speakers and whose first degree qualifications are not obtained through the English medium, they are required to obtain one of the following taken within a two-year period to ensure that our admittees have reached a compatible English language standard: • A score of 80 or above in the Test of English as a Foreign Language (TOEFL) Internet-based test • An overall Band Score of at least 6 in the International English Language Testing System (IELTS)	
Enquiry	msc.dsa@polyu.edu.hk	

^ Students of the 2025/26 cohort will be hosted by the Department of Data Science and Artificial Intelligence

Master of Science in Operational Research and Risk Analysis
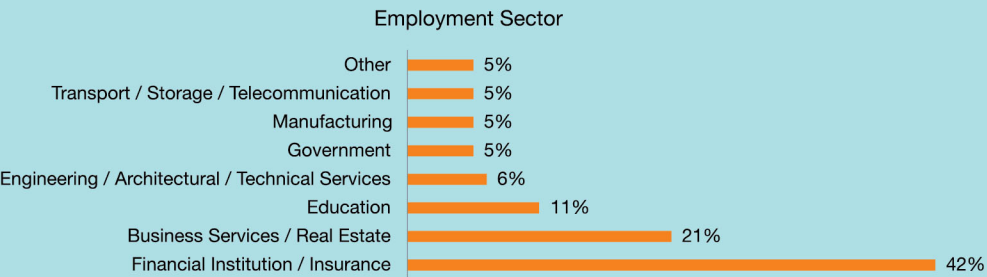
運籌及風險分析理學碩士學位

This programme is designed to equip graduates with strong operational research, risk analysis and statistical skills, as well as a thorough understanding of their applications in the world of modern operational research and risk analysis. It helps develop analytical, critical and communication skills and supports individual in pursuing careers related to operational research and risk analysis in the fast-moving world.

Career Prospects

Graduate would be able to pursue a variety of jobs related to operational research and risk analysis, in areas such as logistics service provision, retail, banking, procurement/sourcing and supply chain functions, and modern financial product development and pricing.

Graduate Employment Statistics (2023)

Employment Sector

Sector	Percentage
Other	5%
Transport / Storage / Telecommunication	5%
Manufacturing	5%
Government	5%
Engineering / Architectural / Technical Services	6%
Education	11%
Business Services / Real Estate	21%
Financial Institution / Insurance	42%

Programme code	63024
Normal duration	1.5 years 3 years
Mode of study	Full time* Part time
Programme structure	7 compulsory subjects and 3 elective subjects or a dissertation
Credit required for graduation	31 credits
Tuition fee	HKD 9,800 per credit
Entrance requirement	A Bachelor's degree with honours in Engineering, Computer Science, Basic Science, Finance, Economics or the equivalent. (Industrial or business experience will be an asset).
English requirement	For applicants who are not native English speakers and whose first degree qualifications are not obtained through the English medium, they are required to obtain one of the following taken within a two-year period to ensure that our admittees have reached a compatible English language standard: • A score of 80 or above in the Test of English as a Foreign Language (TOEFL) Internet-based test • An overall Band Score of at least 6 in the International English Language Testing System (IELTS)
Enquiry	msc.orra@polyu.edu.hk

Master of Science in Quantitative Finance and FinTech
量化金融及金融科技理學碩士學位

The programme is hosted by the Department of Applied Mathematics and supported by the School of Accounting and Finance, meeting the multi-disciplinary nature of quantitative finance and financial technology. All courses are taught by leading experts in quantitative finance, data analytics, risk management and machine learning. The programme will equip graduates with solid knowledge of quantitative methods and proficient programming skills. It also provides professional and career training to help students apply principles and methodologies in formulating and solving real-life problems in financial services and financial technology.

Career Prospects

This programme prepares graduates to succeed in a dynamic and rapidly evolving business environment, making it an excellent investment in their future career success. Our graduates are expected to be able to pursue career as quantitative analysts, financial data analysts, risk managers, financial technology consultants or developers, investment managers, entrepreneurs, and more.
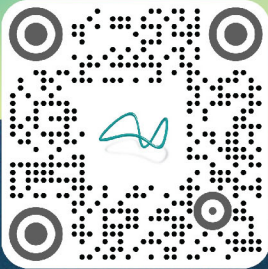
Programme code	63029	
Normal duration	1.5 years	3 years
Mode of study	Full time*	Part time
Programme structure	6 compulsory subjects and 4 elective subjects; OR 6 compulsory subjects, 1 elective subject and a dissertation	
Credit required for graduation	31 credits	
Tuition fee	HKD 12,900 per credit	
Entrance requirement	Bachelor's degree with honours in Mathematics, Statistics, Business, Finance, Science, Computer Science, Engineering, or the equivalent. Applicants with a Bachelor's degree in other disciplines and an adequate background in mathematics or IT will also be considered.	
English requirement	For applicants who are not native English speakers and whose first degree qualifications are not obtained through the English medium, they are required to obtain one of the following taken within a two-year period to ensure that our admittees have reached a compatible English language standard: • A score of 80 or above in the Test of English as a Foreign Language (TOEFL) Internet-based test • An overall Band Score of at least 6 in the International English Language Testing System (IELTS)	
Enquiry	msc.qfft@polyu.edu.hk	

Application Deadline:
- ### Early Round: 19 November 2024
- ### Main Round: 30 April 2025

* Non-local applicants must be registered as full-time students.

Department of Applied Mathematics

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