



## About the Department

The **Department of Applied Mathematics (AMA)** offers a broad range of academic programmes and a wide breadth of exciting research disciplines. We facilitate learning through excellent teaching and research in Applied Mathematics with leading expertise in optimisation, optimal control, computational mathematics, applied statistics and actuarial science, data science, financial mathematics and engineering mathematics. In 2023, PolyU is ranked the world's top 100 in "Statistics and Operational Research" by the QS World University Rankings, and we proudly received a new high ranking of 47<sup>th</sup> place for Best Universities for Mathematics by The US News & World Report.

## Career Prospects

Our programmes are designed to train students with critical and innovative thinking skills associated with problem solving and decision making, which aim to help them solve emerging problems in different domains of application. In the past decade, AMA has groomed thousands of graduates and most of them have found employment in prestigious and renowned corporations throughout the Asia Pacific area.

### Where AMA graduates build their career...

- Bank of China (Hong Kong) - Business Strategy Manager, Market Risk Manager (IT)
- China CITIC Bank - CITICfirst Relationship Manager
- China CITIC Bank International - Infrastructure Engineer
- HKT - Data Analytics Manager
- Hong Kong Economic Times - Business Analyst
- HSBC Private Bank - Senior Vice President
- J.P. Morgan Private Bank - Global Investment Specialist
- PCCW - Data Engineer

## Alumni Sharing

### Zhang Xingyue

*Graduate of BSc (Hons) in Investment Science;*

*Student of Master's programme in Data Science, École Polytechnique Fédérale de Lausanne, Switzerland*

The Investment Science programme is a perfect blend of statistics, programming and finance. The courses prepared me for pursuing further study in Data Science. AMA has also offered us research opportunities and kept us posted about the latest trends in the career market to help us stay ahead of the competition.



### Tze-yau So

*Graduate of BSc (Hons) in Investment Science and Finance Analytics (ISFA);*

*Assistant Business Analyst, AXA China Region Insurance Company Limited*

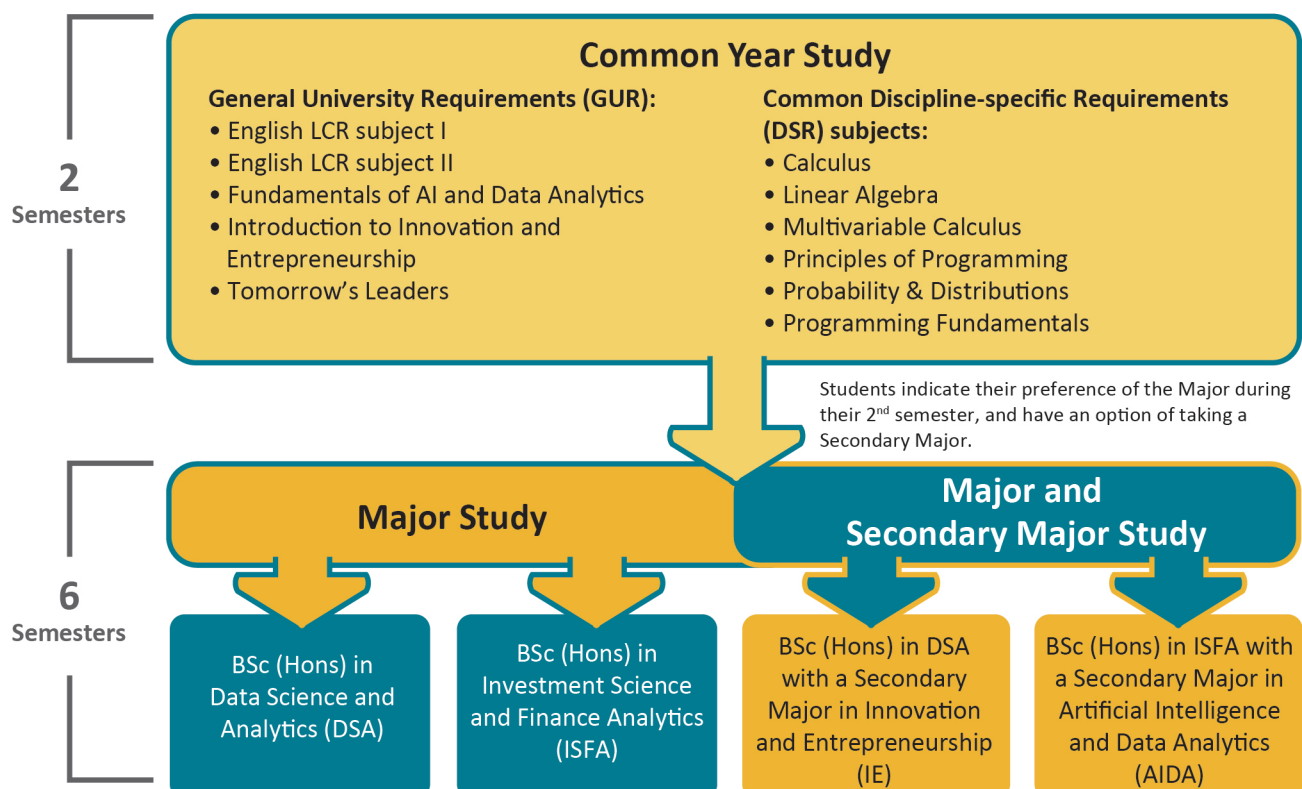
The ISFA programme offers a comprehensive curriculum that encompasses statistics, finance, and computer programming, equipping me with practical skills applicable to data analysis. My U-life was memorable and challenging. Through academic studies, exchange experiences, and work opportunities, I have achieved personal growth and enhanced my ability to independently tackle complex problems.





## Departmental Scheme-based Admission for Undergraduate Programmes

### BSc (Hons) Scheme in Data Science (JS3020)



# Bachelor's Degree Programmes

## BSc (Hons) Scheme in Data Science (JS3020)

The following two programmes are offered under the above scheme:

### BSc (Hons) in Data Science and Analytics (DSA) #

The Data Science and Analytics programme provides students with solid foundation knowledge in data science and hands-on data analytical and programming skills, which will enable students to pursue careers in a broad range of industries, such as information technology, marketing and research, consultancy, healthcare, business retail, urban planning, government and public utilities.

# The option of Secondary Major in Innovation and Entrepreneurship (IE) is available

### BSc (Hons) in Investment Science and Finance Analytics (ISFA) ^

The Investment Science and Finance Analytics programme is concerned with the strategic use of data and mathematical modelling in performing financial analysis and making investment decisions. The programme aims to cultivate investment and finance professionals with strong quantitative analysis, critical thinking, and communication skills in pursuing their careers in different finance sectors such as investment banking, fund management, risk management and financial product development and pricing.

^ The option of Secondary Major in Artificial Intelligence and Data Analytics (AIDA) is available

## Professional Recognition

Upon the completion of this scheme, our graduates are expected to receive partial exemption from the assessment, or eligible for scholarship of various professional bodies:

Major in Professional body	BSc (Hons) in Data Science and Analytics (DSA)
Hong Kong Statistical Society	✓
Royal Statistical Society of UK	✓

Major in Professional body	BSc (Hons) in Investment Science and Finance Analytics (ISFA)
Hong Kong Statistical Society	✓
Royal Statistical Society of UK	✓
Hong Kong Securities and Investment Institute	✓
CFA Institute University Affiliation Program *	✓


\* CFA student scholarship is available to ISFA students



**Programme Details**

 <https://polyu.hk/OrWSy>

**Enquiry**

 2766 6946

 [ds.info@polyu.edu.hk](mailto:ds.info@polyu.edu.hk)



# Taught Master's Degree Programmes

After obtaining a Bachelor's Degree, graduates can continue to strive for further study in our Master's Degree Programmes:

## **MSc in Applied Mathematics for Science and Technology (Actuarial and Investment Science) (63022-AIM), Full-time**

The curriculum of this programme covers the wide topics in statistics, insurance, financial mathematics and decision making, which are essential in the training of students with a solid foundation as professionals in insurance, investment, finance and engineering.

## **MSc in Data Science and Analytics (63027), Mixed-mode**

This programme aims at producing graduates with 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.

## **MSc in Operational Research and Risk Analysis (63024), Mixed-mode**

This programme aims to develop students' analytical, critical and communication skills which will enable them to pursue a variety of jobs related to operational research and risk analysis, in areas such as logistics service providers, retail, banking, procurement/ sourcing and supply chain functions, and modern financial product development and pricing.

## **MSc in Quantitative Finance and FinTech (63029), Mixed-mode** *New*

This interdisciplinary programme is hosted by the Department of Applied Mathematics and supported by School of Accounting and Finance. It is designed to groom professionals with expertise in finance and emerging technologies as well as providing graduate with the necessary skills to pursue careers in the finance industry, and drive innovation and efficiency through the use of technology.




### Programme Details

 [www.polyu.edu.hk/ama/study/pg/](http://www.polyu.edu.hk/ama/study/pg/)



### Website

 [www.polyu.edu.hk/ama/](http://www.polyu.edu.hk/ama/)



DEPARTMENT OF APPLIED MATHEMATICS

應 用 數 學 系