63425
PROGRAMME CODE

DEPARTMENT OF APPLIED MATHEMATICS

BSc (Hons) in Data Science & Analytics

數據科學及分析(榮譽)理學士學位

NORMAL DURATION
2 years

CREDITS REQUIRED FOR GRADUATION
64 credits
(plus 2 training credits for WIE)

TYPE OF FUNDING
Government-funded

MODE OF STUDY
Full-time

INTAKE QUOTA
25

PROGRAMME TEAM

Dr Raymond Sze
BSc, MPhil, PhD

Dr Binyan Jiang
BS, PhD

Dr C.S. Leung
BSc, BEng, MPhil, PhD

Dr Allen Tai
BSc, MPhil, PhD

Programme Aim

To produce graduates with expertise that cuts across core disciplines of mathematics, statistics and computer science. It emphasizes the critical arc that runs from data to information, information to knowledge, and knowledge to decision making. The education is to develop students' analytical, critical thinking, problem-solving and communication skills which will enable them to pursue a variety of careers.

Characteristics

This programme is focused on the study of analytical skills based on mathematics, statistics and computing, and apply them to the management, analysis of data, as well as the discovery of lawfulness from very large data sets or systems, now generally referred as Big Data. Students should be able to manage massive data and help make appropriate decisions upon successful completion of the programme.

Programme Structure

Student must complete all of the Discipline-Specific Requirements (DSR) and General University Requirements (GUR) subjects to fulfil the credit requirement for graduation, except those who are given credit transfers due to their prior study. The DSR subjects comprise Core Subjects and Elective Subjects as listed below.

Core Subjects* (At least 16 subjects with total 49 credits)

Probability and Distribution, Mathematical Methods for Data Science, Statistics for Data Science, Programming for Data Science, Decision Analysis, Database Systems, Business Intelligence and Customer Relationship Management, High Dimensional Data Analysis, Statistical Modeling for Discovery, Forecasting and Applied Time Series Analysis, Simulation, Data Mining and Data Warehousing, Big Data Analytics, Capstone Project, Professional English for Data Science and Analytics Students, Professional Communication in Chinese for Data Science, etc.

*Zero-credit subjects - Admitted students with insufficient background in mathematics or/ and programming are required to pass the zero-credit subject(s) Calculus and Linear Algebra, Principles of Programming or their equivalents.

Elective Subjects (At least 2 subjects with total 6 credits)

Financial Computations and Programming, Operations Research Methods, Econometrics, Optimization Methods, Web Application Design and Development, E-commerce Technology and Applications, Information Systems Audit and Control, Environmental Impact and Assessment, Urban Planning (Workshops), Medical Informatics, Computational Methods, Applied Probability Models for Investment, Statistical Machine Learning, Algorithmic and High Frequency Trading, etc.

Entrance Requirements

- An Associate Degree or a Higher Diploma in IT, Statistics, Engineering, Science or Business from The Hong Kong Polytechnic University, or similar qualifications from other institutions or the equivalent.

Interview Arrangement

- Suitable applicants will be invited to interviews, which aim to evaluate the potential for and interest of applicants in the programme, and to test their communication skills and general knowledge relevant to the programme.

Entrance Scholarship for Outstanding Non-JUPAS Admittees

Outstanding non-JUPAS admittees who meet the selection criteria will be awarded one-off entrance scholarship of HKD10,000. Scan the QR code below or refer to http://www.polyu.edu.hk/ama/information/ama_entrance_scholarship.pdf for details.

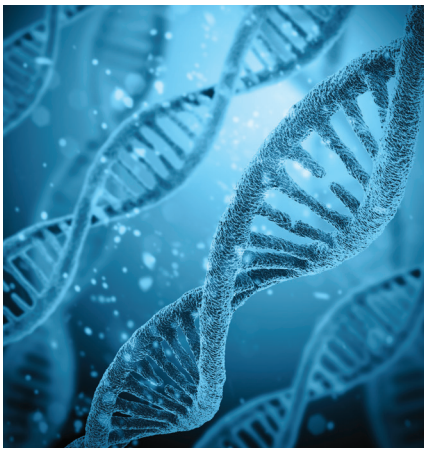
Professional Recognition

Upon the completion of programme, graduates are expected to receive partial exemption from the professional assessment of:

- Hong Kong Statistical Society
- Royal Statistical Society of UK

Career Prospects

Graduate would be able to pursue a variety of careers such as finance, telecoms, information technology, market research, manufacturing and pharmaceuticals. Graduates can also pursue further studies in postgraduate programmes locally or overseas.



Important : The leaflet was compiled in August 2019. Applicants are advised to visit Academic Registry website www.polyu.edu.hk/study for the latest information.

Enquiry 查詢詳情

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