

Postgraduate Diploma in Financial Analytics and Algo Trading

FN092A

FinTech and Financial Intelligence



About the Programme

Financial analytics use computational algorithms and analytical techniques to analyse financial data, construct financial scenarios and facilitate optimal financial decision-making. Financial data is very important that accounting and financial professionals use various ways to collect the data from their company's customer base, competitors' financial reports and/or different markets or even data scraping from webpages. They can use computational tools to visualise the data and to present relevant information using charts and graphs to understand the market situation from financial perspectives. Accountants and finance managers are also required to perform ad hoc analyses for potential projects and investment assets, to forecast possible future financial scenarios as well as to apply financial analytics to facilitate their analyses to support financial decision-making. In quantitative investing, analysts build financial models, which involve the applications of cutting-edge technologies like Artificial Intelligence (AI) and Machine Learning (ML), evaluate their investment strategies, and optimise investment portfolios by applying methodologies of financial analytics. With the help of algorithmic trading (algo trading) programs, investors can be more systematic in collecting, visualizing, presenting, interpreting and analysing massive financial data and more discipline in implementing their investment strategies and executing their desired trades automatically. Besides, those programs help investors to avoid emotional biases and cognitive errors in investment, expand their investment universe, tackle changes in the economic situations and financial markets swiftly, gauge the trading opportunities accurately, as well as predict the potential return and diversified their investment portfolio.



Objectives

This programme aims to impart interdisciplinary knowledge of quantitative finance and machine intelligence to students who are interested in financial analytics and algo trading. It examines contemporary elements in Environmental, Social and Governance (ESG) investing, financial risks and investment portfolios. It also discusses the applications of computational tools to analyse quantitative data and qualitative data, build financial models, perform financial analysis and text analytics to assist investment decision-making. The programme illustrates the applications of artificial intelligence (AI) and machine learning to perform financial analytics as well as the usage of algo trading in implementing quantitative investment strategies.

Who should apply

Quantitative analysts, investment strategists, investment analysts, performance analysts, portfolio managers, chief investment officers and manager of managers in finance and investment sectors, data scientists, system developers, programmers, project managers and executives in finance and FinTech fields, investment professionals and financial executives who want to refresh their knowledge and explore the latest development of financial analytics and AI are welcome to apply for the programmes. For graduates of HKU SPACE Postgraduate Diploma (e.g., Postgraduate Diploma in Investment Management and Financial Intelligence, Postgraduate Diploma in Applied Financial Engineering, and Postgraduate Diploma in Finance and Data Analytics, and Postgraduate Diploma in FinTech and Legal Regulations) within 5 years upon their graduation, they will have exempted module.



Programme Structure



Students pursuing this programme must successfully complete 60 credits comprising 6 modules.

Module 1 : AI and Financial Computing

CEF Course Code: 33Z144216

QF Level: 6 QR Registration No.: 22/000999/L6 QR Registration Validity Period: 01 Dec 2022 - on-going



Module 2 : Financial Analysis and ESG Investing

CEF Course Code: 33Z144224

QF Level: 6 QR Registration No.: 22/000999/L6 QR Registration Validity Period: 01 Dec 2022 - on-going



Module 3 : Financial Risk Analysis and Portfolio Optimisation

Module 4 : Machine Learning for Financial Analytics

CEF Course Code: 33Z144232

QF Level: 6 QR Registration No.: 22/000999/L6 QR Registration Validity Period: 01 Dec 2022 - on-going



Module 5 : Web Scraping and Text Analytics in Quantitative Finance

Module 6 : Algo Trading and Quantitative Investment Strategies

CEF Course Code: 33Z144240

QF Level: 6 QR Registration No.: 22/000999/L6 QR Registration Validity Period: 01 Dec 2022 - on-going



Some modules of this course have been included in the list of reimbursable courses under the Continuing Education Fund



This course is recognised under the Qualifications Framework (QF Level 6)

Admission

There are several intakes per year. Please visit the programme webpage for the detail information.

Mode of Delivery

The programme will be taught in part-time face-to-face teaching mode. 33 to 42 contact hours (lectures and/or practical classes in the computer laboratory) will be provided. Classes are held on weekday evenings and/or weekends at HKU SPACE Campus. The language of instruction for all modules will be in English.

* For your safety and health, please note that the School may substitute face-to-face classes with online teaching if necessary.

Module Assessment

Each module will be assessed by a mix of coursework, group presentation and written reports.

Programme Fee

For the latest course fee, please refer to the programme website for more information. The payment is by module. (*\$150 non-refundable for application fee; course fees are subject to change without prior notice).

Application

Applicants can apply online or fill out the enclosed application form and take it in person to one of the locations below. Applicants should include a non-refundable application fee of HK\$150 to cover the cost of processing (Cheques should be crossed out and made payable to "HKU SPACE"). Please also bring the original and photostat copies of your ID Card and relevant certificate and transcripts.

Entry Requirements

Applicants shall hold a bachelor's degree in quantitative or computational areas (e.g., economics, finance, mathematics, statistics, science, computer science, IT, engineering) awarded by a recognized institution or equivalent.

If the degree or equivalent qualification is from an institution where the language of teaching and assessment is not English, applicants shall provide evidence of English proficiency, such as:

- an overall band of 6.0 or above with no subtests lower than 5.5 in the IELTS; or
- a score of 550 or above in the paper-based TOEFL, or a score of 213 or above in the computer-based TOEFL, or a score of 80 or above in the internet-based TOEFL; or
- HKALE Use of English at Grade E or above; or
- HKDSE Examination English Language at Level 3 or above; or
- equivalent qualifications.

Applicants without the above qualifications but have substantial relevant work experience will be considered on individual merit.

Applicants who do not have a background in quantitative or computational areas are required to take the Certificate for Module (Quantitative Methods in Finance) as the bridging course. They must complete and pass the module before the commencement of the programme.

Enquiries

Email: finpgd@hkuspace.hku.hk

Tel: 2520 4612



Every effort has been made to ensure the contents of this brochure are correct at the time of printing. HKU SPACE reserves the right to update the contents of the brochure at any time without notice and this brochure does not form part of contract between the students and the School. Information in the HKU SPACE website is the most up-to-date version and supersedes the printed brochure, wherever applicable.

HKU SPACE is a non-profit making University company limited by guarantee.

