

4.2.2.9 Master of Science in Quantitative Finance (Full-Time and Part-Time)

The Master of Science in Quantitative Finance by coursework is a postgraduate programme offered by the Department of Mathematics with the cooperation of the Department of Economics and the Department of Statistics and Applied Probability. The objective of the programme is to provide advanced training in quantitative finance with an emphasis on coursework. Students in the programme are expected to acquire advanced knowledge in quantitative finance as well as a deep understanding of the background and implications of the use of quantitative methods in the financial industry. The programme offers opportunities to those who have an Honours degree in quantitative finance or mathematics to build and enhance their professional skills and qualifications in quantitative finance at masters level.

Admission Requirements

Candidates applying for admission into the programme should ordinarily possess or be expecting to obtain an Honours degree (or a 4-year Bachelor's degree) in a discipline with strong training in quantitative finance or mathematics at university level, or an equivalent qualification.

In addition, a candidate whose native tongue or medium of undergraduate instruction is not English must complete TOEFL or IELTS. A minimum TOEFL score of 85 is required for the internet-based test (with a minimum of 22 for the writing section), or 580 for the paper-based test, or 260 for the computer-based test; while a minimum IELTS score of 6.0 is required.

Programme Structure

Students have to fulfil all the following conditions:

1. Read and pass the following five essential modules:
 - i. MA4269 Mathematical Finance II
 - ii. QF4102 Financial Modelling
 - iii. QF5210 Financial Time Series: Theory and Computation
 - iv. QF5202 Structured Products
 - v. QF5203 Risk Management
2. Read and pass five elective modules chosen from the following list:
 - i. DSA5205 Data Science in Quantitative Finance
 - ii. MA5233 Computational Mathematics
 - iii. MA5248 Stochastic Analysis in Mathematical Finance
 - iv. QF5201 Interest Rate Theory and Credit Risk
 - v. QF5204 Numerical Methods in Quantitative Finance
 - vi. QF5205 Topics in Quantitative Finance I
 - vii. QF5206 Topics in Quantitative Finance II
 - viii. QF5207 Investment and Portfolio Selection
 - ix. QF5208 AI & FinTech
 - x. EC5102 Macroeconomic Theory
 - xi. EC5103 Econometric Modelling & Applications I
 - xii. EC5332R Money and Banking
 - xiii. ECA5334 Corporate Finance

- xiv. ST5207 Non-parametric regression
 - xv. ST5210 Multivariate Data Analysis
 - xvi. ST5218 Advanced Statistical Methods in Finance
3. Obtain a minimum Cumulative Average Point (CAP) of 3.00.

Modules coded MAxxxx or QFxxxx are offered by the Department of Mathematics. Modules with codes QF5xxx (except QF5210) are offered exclusively to students in the Master of Science in Quantitative Finance programme.

Modules coded ECxxxx or ECAxxxx are offered by the Department of Economics.

Modules coded STxxxx are offered by the Department of Statistics and Applied Probability.

Candidature & Application

The candidature for full-time students is from a minimum of two semesters to a maximum of six semesters.

The candidature for part-time students is from a minimum of four semesters to a maximum of eight semesters.

Programme Intake

There is one intake per academic year in August.