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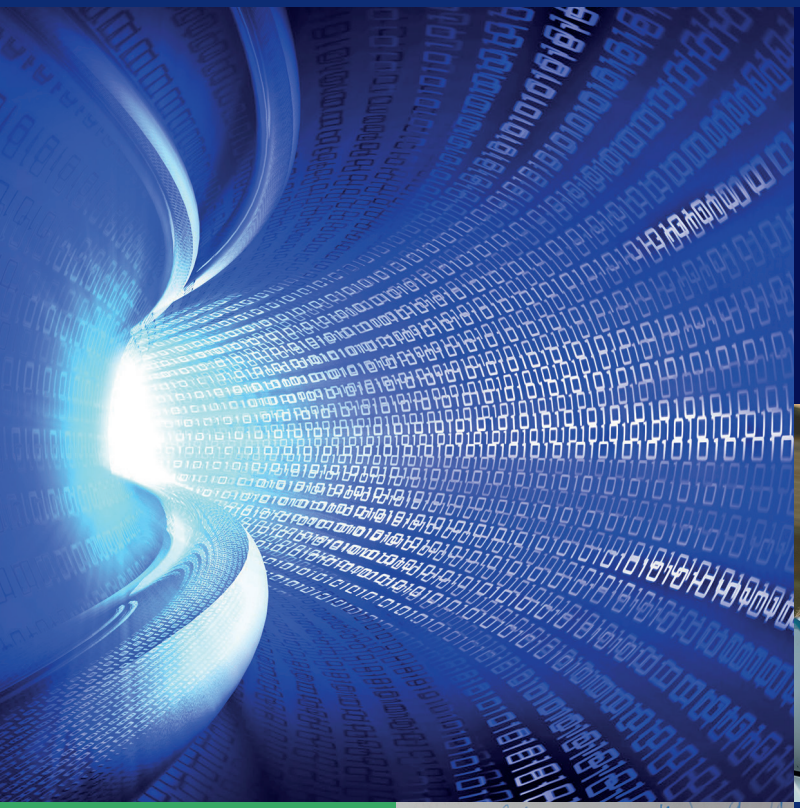
MSc Financial and Computational Maths

Develop knowledge and skills for a career in quantitative finance

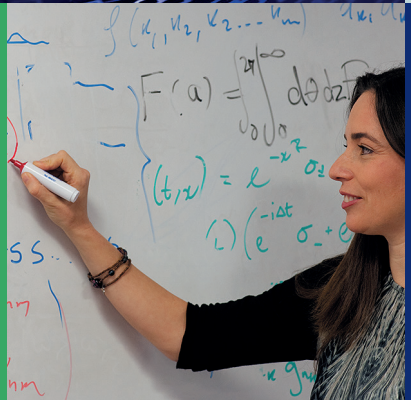
nottingham.ac.uk/mathematics/masters



School ranked within top 10 for research*

An innovative learning environment

Benefit from expert teaching at a research-led university



Career opportunities in risk analysis and management

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Study to develop expertise in quantitative finance

Overview

Financial mathematics is a branch of mathematics where advanced mathematical and statistical methods are developed for and applied to financial markets and management. Its main aims are to quantify and hedge risks in the financial marketplace. The course is designed to reflect this combination of knowledge and skills so that graduates are well equipped to enter competitive job markets of quantitative finance and related fields.

Content

During this course you will:

- develop advanced mathematical and statistical methods for application in financial markets and within financial management
- keep up to date with changes in the financial industry, thanks to the course having its own advisory board of leading experts from academia and selected financial firms.

Structure

Studied full-time over one year at University Park, the course is made up of compulsory and optional taught modules giving you flexibility to work on topics of interest to you.

A dissertation, worth 60 credits, is carried out over the summer and allows you to develop valuable skills in problem solving and effective communication of the results.

Modules

You will take a total of 120 credits, typical modules include:

Compulsory modules

- Financial Mathematics (20 credits)
- Scientific Computing and C++ (20 credits)
- Advanced Financial Mathematics (20 credits)
- Advanced Scientific Computing (20 credits)

As well as compulsory modules you also choose 40 credits of optional modules which include, for example:

- Statistical Machine Learning (20 credits)
- Monetary Theory and practice (15 credits)
- Macroeconomics: Economic Cycles, Frictions and Policy (15 credits)
- Optimisation (20 credits)
- Time Series Econometrics (15 credits)

Entry requirements

An upper second class honours (2:1) BSc degree (or equivalent) in mathematics, physics, computer science or engineering. A background in finance is not necessary, just enthusiasm to learn.

Applicants should have a strong mathematical background with an understanding of calculus, linear algebra, ordinary differential equations and the basics in probability and statistics.

If English is not your first language, you must achieve IELTS 6.5 (with no less than 6.0 in any element).

To develop your academic English and study skills, please visit **nottingham.ac.uk/cele**

> “The MSc in Financial and Computational Mathematics at University of Nottingham is an excellent programme run by one of the top mathematics departments in the UK. It blends mathematics, finance and computing in a natural and consistent way and equips its graduates with knowledge and skills required for quantitative jobs in the financial sector.”
>
> Dr Maria Krivko, Quantitative Analyst at world-leading financial firm.

* Research Excellence Framework, 2014.

Funding your studies

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