LONDON’S GLOBAL UNIVERSITY

FINANCIAL MATHEMATICS
MSc / 2019/20 ENTRY

www.ucl.ac.uk/graduate/
The financial services industry place great emphasis on raising the level of mathematics used in banks in applications to pricing, hedging and risk management. This MSc provides students with the skills necessary in mathematics, statistics and computation for a career in this fast-developing field.

**Degree summary**

Students will develop a detailed understanding of the application of mathematics, statistics and computation to problems in finance, and will gain the necessary practical tools for the pricing, hedging and risk management of a diverse range of financial products in several asset classes.

- UCL Mathematics is an internationally renowned department which carries out excellent individual and group research applying modelling techniques to problems in financial, industrial, biological and environmental areas.
- The department hosts a stream of distinguished international visitors. In recent years four staff members have been elected fellows of the Royal Society, and the department publishes the highly regarded research journal Mathematika.
- A notable aspect of this applied Master’s programme is that students will be educated to an advanced level in statistics and computing.

The programme is delivered through a combination of lectures, practical classes, tutorials and problem-solving exercises. Assessment is through written papers, coursework, examinations and the research report and presentation.

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### Degree structure

**Mode:** Full-time: 1 year; Part-time: 2 years  
**Location:** London, Bloomsbury

Students undertake modules to the value of 180 credits. The programme consists of four core modules (60 credits), four optional modules (60 credits) and the research dissertation (60 credits).

A Postgraduate Diploma will be offered to the students that have completed 8 taught modules (120 UCL credits).  
A Postgraduate Certificate will be offered to the students that have completed 4 taught modules (60 UCL credits).

Please note that the list of modules given here is indicative. This information is published a long time in advance of enrolment and module content and availability is subject to change.

#### COMPULSORY MODULES

- Statistical Methods and Data Analytics  
- Finance and Numerics  
- Market Risk and Portfolio Theory  
- Asset Pricing in Continuous Time  
- MSc Project

#### OPTIONAL MODULES

Four modules must be chosen from the following list.

- Interest Rates and Credit Modelling  
- Topics in Financial and Insurance Mathematics  
- Stochastic Processes  
- Mathematics and Statistics of Algorithmic Trading  
- Applied Computational Finance  
- Quantitative Modeling of Operational Risk and Insurance Analytics  
- Forecasting

#### DISSERTATION/REPORT

- All MSc students undertake an independent research project, which culminates in a research report of approximately 10,000 words.
Your career

Many students have progressed to careers in financial services in the City of London or in their home country; a number of graduates have proceeded to a PhD.

Employability

The financial services industry requires quantitative finance professionals who are able to analyse data, to program, and who are expert in mathematics and computational statistics. Career prospects for graduates of this programme are excellent.
Entry requirements

A minimum of an upper second-class Bachelor’s degree in a relevant discipline from a UK university or an overseas qualification of an equivalent standard.

English language proficiency level

If your education has not been conducted in the English language, you will be expected to demonstrate evidence of an adequate level of English proficiency.

The level of English language proficiency for this programme is: Standard.

Information about the evidence required, acceptable qualifications and test providers is provided at:
www.ucl.ac.uk/graduate/english-requirements

Your application

Students are advised to apply as early as possible due to competition for places. Those applying for scholarship funding (particularly overseas applicants) should take note of application deadlines.

When we assess your application we would like to learn:

// why you want to study Financial Mathematics at graduate level
// why you want to study Financial Mathematics at UCL
// what particularly attracts you to this programme
// how your academic background meets the demands of a challenging programme
// where you would like to go professionally with your degree

Together with essential academic requirements, the personal statement is your opportunity to illustrate whether your reasons for applying to this programme match what the programme will deliver.

There is an application processing fee for this programme of £75 for online applications and £100 for paper applications. Further information can be found at:
www.ucl.ac.uk/prospective-students/graduate/taught/application.

FEES AND FUNDING 2019/20 ENTRY

// UK: £26,110 (FT), £13,340 (PT)
// EU: £26,110 (FT), £13,340 (PT)
// Overseas: £30,140 (FT), £15,090 (PT)

The tuition fees shown are for the year indicated above. Fees for subsequent years may increase or otherwise vary. Further information on fee status, fee increases and the fee schedule can be viewed on the UCL Students website.

All full-time students are required to pay a fee deposit of £2,000 for this programme. All part-time students are required to pay a fee deposit of £1,000.

Full details of funding opportunities can be found on the UCL Scholarships website: www.ucl.ac.uk/scholarships

APPLICATION DEADLINE

All applicants: 21 June 2019
Details on how to apply are available on the website at:
www.ucl.ac.uk/graduate/apply

CONTACT

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EU referendum

For up-to-date information relating to specific key questions following the UK’s decision to leave the EU, please refer to www.ucl.ac.uk/brexit