MATHEMATICS WITH ECONOMICS MSci / UCAS CODE: G1LC 2018 ENTRY

www.ucl.ac.uk/prospectus/maths
Mathematics with Economics MSci

This MSci offers an extra year of study on top of the Mathematics with Economics BSc, during which students have the opportunity to specialise further by taking more advanced modules, and undertaking a major project. No previous knowledge of economics is required.

**Key information**

**Programme starts**
September 2018

**Location**
London, Bloomsbury

**Degree benefits**

- There are close and exciting connections between parts of economic theory and certain areas of abstract mathematics. Research interests of staff allow the possibility of advanced modules in this area.

- The MSci allows for additional in-depth study, providing the skills necessary for academic research in mathematics and economics.

- Internationally renowned UCL Mathematics is home to world-leading researchers in a wide range of fields, especially geometry, spectral theory, number theory, fluid dynamics and mathematical modelling.

- Three of the six British winners of the Fields medal (the mathematician’s equivalent of the Nobel Prize) have associations with the department.

**Research Excellence Framework (REF) 2014**

The Research Excellence Framework, or REF, is the system for assessing the quality of research in UK higher education institutions. The 2014 REF was carried out by the UK’s higher education funding bodies, and the results used to allocate research funding from 2015/16.

- 82% rated 4* ('world-leading') or 3* ('internationally excellent')

Learn more about the scope of UCL’s research, and browse case studies, on our Research Impact website.

**Degree structure**

In each year of your degree you will take a number of individual modules, normally valued at 0.5 or 1.0 credits, adding up to a total of 4.0 credits for the year. Modules are assessed in the academic year in which they are taken. The balance of compulsory and optional modules varies from programme to programme and year to year. A 1.0 credit is considered equivalent to 15 credits in the European Credit Transfer System (ECTS).

In the first two years you will receive a thorough grounding in analysis, algebra and mathematical methods, following the same modules as the single-subject Mathematics students taking 3.0 credits each year. In place of the Applied Mathematics modules, you will take 1.0 credit of introductory economics each year (comprising both microeconomics and macroeconomics). Having laid the basic foundations there is a range of options in both mathematics and economics in the third and fourth years. The fourth year will include a major project, which will involve a substantial piece of written work and a presentation.

This programme is offered as a three-year BSc or a four-year MSci degree. The first two years of the programme are identical, and students are advised to apply for the MSci degree in the first instance, as it is possible to transfer to the BSc during the first three years.

**YEAR ONE**

**Core or compulsory module(s)**

- Mathematics modules:
  - Algebra 1
  - Algebra 2
  - Analysis 1
  - Analysis 2
  - Mathematical Methods 1
  - Mathematical Methods 2

- Economics modules:
  - Economics 1 (Combined Studies) (1.0 credit)

**Optional modules**

- All first-year modules are compulsory.

**YEAR TWO**

**Core or compulsory module(s)**

- Mathematics modules:
  - Algebra 3: Further Linear Algebra
  - Analysis 3: Complex Analysis
  - Mathematical Methods 3

- Economics modules:
  - Economics 2 (Combined Studies) (1.0 credit)

**Optional modules**

- You will select three of the following:
  - Algebra 4: Groups and Rings
  - Analysis 4: Real Analysis
  - Computational Methods
  - Geometry and Groups
  - Mathematical Methods 4
  - Number Theory
  - Probability and Statistics

- One of the modules may be replaced by a half-credit outside option, subject to departmental approval.

**YEAR THREE**

**Core or compulsory module(s)**

- All third-year modules are optional. Currently available mathematics options are described on the UCL Mathematics website.

**Optional modules**

- You will select:
  - 2.0 credits of third-year mathematics designated options
  - 1.0 credit of suitable economics options
  - 1.0 credit of third-year mathematics or approved outside options
Your learning

Teaching is mainly carried out through lectures and small-group tutorials. Problem classes allow you to exercise the skills you have learned. In addition, an ‘office hours’ system for each programme allows you to meet with tutors on a one-to-one basis to review parts of the degree you find interesting or that need clarifying. A Student Mentor scheme runs in the department offering support and advice to first-years.

Assessment

Most modules are assessed by two-hour written examinations in the third term, with a small element (10%) of coursework assessment.

Your career

We aim to develop your skills in mathematical reasoning, problem-solving and accurate mathematical manipulation. You will also learn to handle abstract concepts and to think critically, argue logically and express yourself clearly.

A mathematics degree is highly valued by employers due to the skills in logical thinking, analysis, problem-solving and, of course, numeracy, that it develops.

First career destinations of recent graduates (2013-2015) of Mathematics with Economics programmes at UCL include:

- Financial Analyst, Credit Suisse
- Analyst, KPMG
- Full-time student, MSc in Mathematics and Computer Science at the University of Oxford
- Finance Analyst, Citigroup
- Graduate Financial Analyst, Royal Bank of Canada (RBC)

Your application

Application for admission should be made through UCAS (the Universities and Colleges Admissions Service). Applicants currently at school or college will be provided with advice on the process; however, applicants who have left school or who are based outside the United Kingdom may obtain information directly from UCAS.

In addition to academic requirements, we expect you to demonstrate an understanding and enjoyment of the subject beyond the examined syllabus, through your reading and involvement in problem-solving activities. Evidence of your curiosity and perseverance in tackling puzzles, and your enjoyment of logical and abstract thinking, should be shown in your application.
Entry requirements

A LEVELS

Grades
A*A*A, or A*AA and a 1 in any STEP paper or distinction in Mathematics AEA

Subjects
Mathematics and Further Mathematics required at A*, or Mathematics at A* and Further Mathematics at A if STEP or AEA offered.

GCSE
English Language and Mathematics at grade C or 5. For UK-based students, a grade C or 5 or equivalent in a foreign language (other than Ancient Greek, Biblical Hebrew or Latin) is required. UCL provides opportunities to meet the foreign language requirement following enrolment, further details at: www.ucl.ac.uk/ug-reqs

IB DIPLOMA

Points
39-40 overall.

Subjects
A score of 20 points in three higher level subjects including 7 in Mathematics, or 19 points in three higher level subjects including 7 in Mathematics and a 1 in any STEP paper or a distinction in Mathematics AEA, with no score below 5.

OTHER QUALIFICATIONS
UCL considers a wide range of UK and international qualifications for entry into its undergraduate programmes. Full details are given at: www.ucl.ac.uk/otherquals

UNDERGRADUATE PREPARATORY CERTIFICATES (International foundation courses)
The Undergraduate Preparatory Certificates (UPCs) are intensive one-year foundation courses for international students of high academic potential who are aiming to gain access to undergraduate degree programmes at UCL and other top UK universities.

Typical UPC students will be high achievers in a 12-year school system which does not meet the standard required for direct entry to UCL.

For more information see: www.ucl.ac.uk/upc.

TUITION FEES
The fees indicated are for undergraduate entry in the 2018/19 academic year. The UK/EU fees shown are for the first year of the programme at UCL only. The Overseas fees shown are the fees that will be charged to 2018/19 entrants for each year of study on the programme, unless otherwise indicated below.

// UK & EU: £9,250 (2018/19)
// Overseas: £22,790 (2018/19)

Full details of UCL’s tuition fees, tuition fee policy and potential increases to fees can be found on the UCL Students website.

FUNDING
Various funding options are available, including student loans, scholarships and bursaries. UK students whose household income falls below a certain level may also be eligible for a non-repayable bursary or for certain scholarships. Please see the Fees and funding pages for more details.

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/eu-referendum

Disclaimer
This information is for guidance only. It should not be construed as advice nor relied upon and does not form part of any contract. For more information on UCL’s degree programmes please see the UCL Undergraduate Prospectus at www.ucl.ac.uk/prospectus