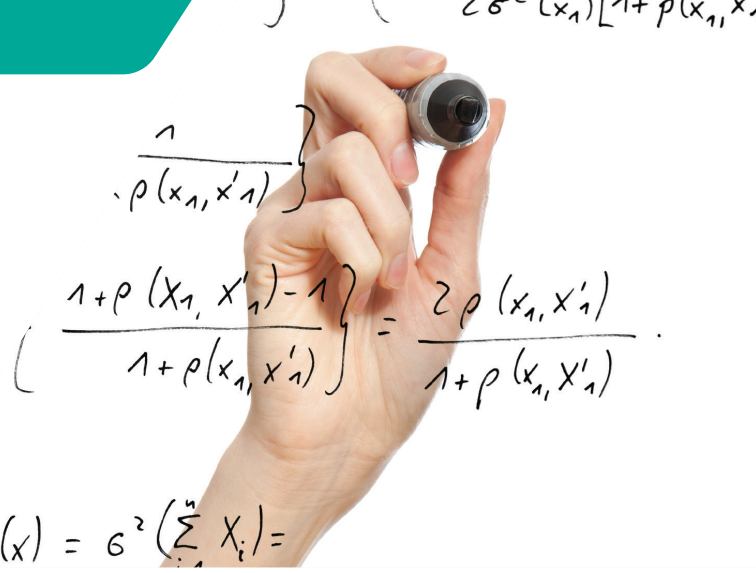**University College Dublin**
Ireland's Global University

Higher Diploma Mathematical Studies
(1 Year Full Time)

This programme is for you if you have a passion for mathematics, for problem solving and for deep understanding of the structures which underlie much of everyday experience. The programme may be of particular benefit to teachers or potential teachers, who would like to include mathematics among the subjects that they are eligible to teach at Leaving Certificate level.

If you have already been exposed to a limited amount of University-level mathematics and would like to find a path into teaching or more advanced studies in the subject, then this programme provides the necessary bridge. After completing the UCD Higher Diploma in Mathematical Studies you will achieve a level of competence equivalent to that of a Mathematics major in a three-year honours degree programme.

It will qualify you to continue with more advanced studies in mathematics and demonstrate the understanding and technical skills associated with advanced mathematics.

Key Fact

The programme covers the mathematics necessary to qualify the student to teach mathematics to Leaving Certificate level when combined with a Professional Master of Education (PME).

Why study at UCD?

Tradition
Established 1854, with 160 years of teaching & research excellence

Global profile
UCD is ranked in the top 1% of higher education institutions worldwide

Global community
Over 6,000 international students from over 120 countries study at UCD

Global careers
Degrees with high employability; dedicated careers support; 1 year stay-back visa

Safety
Modern parkland campus with 24 hour security, minutes from Dublin city centre

Course Content and Structure

60 credits
taught masters – all taught modules

Sample topics include:

- Calculus of several variables
- Number theory and combinatorics
- Algebraic structures
- Linear algebra
- History of mathematics
- Introduction to coding and/or cryptography

- Graphs and networks
- Financial mathematics
- Analysis
- Geometry
- Differential equations
- Statistics and data analysis

Modules and topics shown are subject to change and are not guaranteed by UCD.

Images © UCD Research

Career Opportunities

The programme covers the mathematics necessary to qualify the student to teach mathematics to Leaving Certificate level when combined with a Professional Master of Education (PME). With further study in mathematics or a related discipline a wide range of the following careers become available:

- Financial engineer/quantitative analyst
- Computer animation
- Systems biologist
- Statistician
- Meteorologist
- Graduate entry into banking/accountancy
- Internet security, software

Prospective employers include Bell Labs, Campbell Scientific, IBM, Intel, IFSC, Google, Met Eireann, Microsoft, Nokia, Norkom, Phillips, RIM and the Tyndall Institute.

Apply Now

This programme receives significant interest so please apply early online at www.ucd.ie/apply

Entry Requirements

- This programme is intended for applicants with an undergraduate degree with at least 10 credits of university level mathematics, including a course in calculus and a course in linear algebra. A lower second class honours degree or international equivalent is required.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent.

Fees

Tuition fee information is available on www.ucd.ie/fees

Accommodation

UCD has accommodation for over 2,500 students across five locations. Places are limited and more information is available at www.ucd.ie/residences/
For information and advice on living off campus, please contact the UCD Residences Off-Campus Office or the UCD Student Union Accommodation Services. Please visit www.ucd.ie/residences/accommodation-booking-support/ for further details.

Additional Course Delivery Options

- Higher Diploma Mathematical Studies 2 Year Part Time

Related Masters Programmes of Interest

- MA Mathematics

Staff Profile
Dr Robert Osburn, Lecturer, UCD School of Mathematics and Statistics

Mathematics is a universal language, which underpins science, education and industry. The Higher Diploma in Mathematical Studies at UCD is a demanding and rewarding endeavour, which prepares students for careers as researchers, highly qualified teachers or innovators. The training and development of a skilled workforce in these areas are of vital importance to Ireland's growth as a competitive and dynamic economy in the EU.

Graduate Profile
Cathal Dempsey, Risk Analyst

I chose to study the Higher Diploma in Mathematical Studies as I had an interest in Mathematics and graduates with qualifications in Mathematics are in high demand. Having completed a BComm a few years previously, choosing to then study Mathematics was initially daunting and very challenging, but thankfully the design of the course and in particular the support from lecturers was excellent. The approachability of lecturers and their genuine desire to see you improve and learn was a huge help. Overall I found the course to be so interesting and enjoyable that I decided to continue on and study the UCD Higher Diploma in Mathematical Sciences, for which the Higher Diploma in Mathematical Studies is an excellent foundation.

EU Enquiries Programme Administrator
✉ : pgstudies@maths.ucd.ie 📞 : +353 1 716 2452
www.ucd.ie/courses/hdip-mathematical-studies
www.ucd.ie/mathsciences/graduatestudents/
UCD School of Mathematics and Statistics, University College Dublin, Belfield, Dublin 4.

Non-EU Enquiries ✉ : internationaladmissions@ucd.ie
www.ucd.ie/international

V1 T172 2018