

University College Dublin Ireland's Global University

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. p(x1, x'1)

# MA Mathematics (16 Months Full Time)

The MA in Mathematics is designed for graduates who wish to obtain a masters degree in Mathematics but who have not completed a four year honours BSc in Mathematics. It combines components of the Higher Diploma in Mathematical Sciences and the MSc in Mathematics to offer an opportunity for a student to complete an MA in Mathematics within a 16-month period. This is an attractive alternative to the more standard 24-month pathway of the Higher Diploma followed by the MSc in Mathematics. On successful completion of the programme you will have the knowledge, experience and confidence to pursue a PhD in mathematics, or a related discipline, have attained an advanced and modern mathematical training, developed excellent presentation skills and acquired a much sought after qualification that can be applied to a wide variety of careers in the quantitative, financial, and IT sectors.

### **Key Fact**

The UCD School of Mathematical Sciences is a dynamic, multidisciplinary school spanning the disciplines of Mathematics, Applied and Computational Mathematics, Statistics and Actuarial Science. The School engages in research of international renown and teaches students across all disciplines. As well as having a strong commitment to basic research, several members in the school are involved in the UCD Complex Adaptive Systems Laboratory (CASL) and the INSIGHT Centre for Data Analytics.

## Why study at UCD?







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### 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**

120 credits taught masters 90 credits

30 credits

Modules offered change from year to year. A representative list of courses offered is as follows:

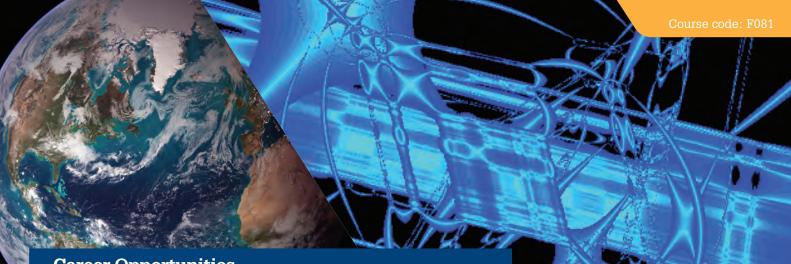
- Calculus of Several
   Variables
- Linear Algebra 2
- Groups, Rings and Fields
- Functions of One Complex
  Variable
  \_\_\_\_\_
- Metric Spaces
- Ring Theory
- Functional Analysis
- Combinatorics

- Modules and Rings
- Coding Theory
- Cryptography and Elliptic
   Curves
- Finite Group TheoryFunctions of Several
- Complex VariablesModular Forms of
- One Variable
- Number Theory

- Matrix Theory
- Mathematical Theory of PDEs
- Fractal Geometry
- Potential Theory
- Problems in Hilbert Space
- Topics in Combinatorics
- Wavelet Analysis



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



### **Career Opportunities**

The MA in Mathematics will give you the opportunity to develop numeracy, organization and problem-solving skills, which are required in areas such as the trading floor of an investment bank, the mathematics classroom, predicting the weather and in the insurance industry. Some of the careers chosen by our graduates include working as researchers in mathematics (both in academia and industry), actuarial consultants, risk analysts, meteorologists, IT consultants, second and third level teaching.



Prospective employers include Aquamarine Power, Alcatel-Lucent, Bureau Veritas, Campbell Scientific, IBM, IFSC, Intel, Google, Lloyds, Marine Institute, Met Eireann, Microsoft, Nokia, Norkom, Numerica Corporation, OpenHydro, Paddy Power, Phillips, RIM, Simula Research 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 who hold a degree with high mathematical content such as Mathematics, Mathematics & Education, or Economics & Finance. An upper 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.

**Staff Profile** 

Professor Gary McGuire, UCD School of Mathematical Sciences

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Gary McGuire is the director of the Claude Shannon Institute for Coding Cryptography and Discrete Mathematics, which is part of the Security and Trust cluster of CASL. I have taught Elliptic Curve Cryptography, which takes students from the mathematical theory of elliptic curves to its real-world applications in cryptography. I am the director of the Claude Shannon Institute, where we have a team doing cutting-edge research in cryptography and coding theory. Images © UCD Research

### **Fees and Scholarships**

Tuition fee information is available on www.ucd.ie/fees. Please note that UCD offers a number of postgraduate scholarships for fulltime, self-funding international students, holding an offer of a place on masters programmes. Please visit www.ucd.ie/international/scholarships for further information.

### 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/accommodationbooking-support/ for further details.

### Related Masters Programmes of Interest

- MSc Mathematics
- MSc Mathematical Science
- Higher Diploma Mathematical Science

#### **EU Enquiries**

 Programme Administrator
 Non-EU End

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