

# Mathematics

BA [Hons] [NFQ Level 8]



## BA Degree [Joint Honours] **BAU1**

Length of Course 3 Years

### Guideline Entry Requirements

(please note, successful candidates generally present with grades well in excess of the minimum grades indicated below)

IB – International Baccalaureate Diploma	IB Total 26 A high level of English language competency is normally required
Cambridge A Level (+ GCSE O Level)	BCC A high level of English language competency is normally required
Other Examinations	For country specific information see page 157
UCD International Foundation Year	No



UCD Ad Astra Academic Scholar Patrick Doohan is a Maths and Geography student

### Why is this subject for me?

Mathematics plays a key role in our quest to fully describe and understand the natural world. Those who concentrate on this subject will gain an understanding of mathematical concepts and learn how to prove key facts and solve problems using deductive reasoning.

### What will I study?

Some first year modules build on the foundations laid at school but you will also meet exciting new aspects of the subject. It is not assumed that you will have met everything before and each topic is carefully introduced and built upon.

#### First Year

Calculus • Linear Algebra • Number Theory & Combinatorics

#### Second & Third Year

Analysis • Algebra • Graphs & Networks • History of Mathematics • Algebraic Structures • Geometry • Financial Mathematics • Differential Equations • Probability & Statistics • Complex Analysis

Mathematics is taught in lectures and tutorials, and students also undertake independent study.

Assessment is through a combination of end-of-semester written examinations and continuous assessment.

### Career & Graduate Study Opportunities

The skills and problem-solving abilities you acquire are highly prized in a range of professions. Our recent graduates have found highly rewarding employment in:

Actuarial science • Political science • Journalism • Business • Sociology • Banking and financial services • IT • Education • Meteorology • Accounting

Graduates may also pursue further study including the HDip in Mathematical Science [qualifier for the MSc in Mathematics], HDip in Actuarial Science, HDip in Statistics, and MA in either Mathematics or Statistics.

### International Study Opportunities

An extra year spent in an international university, leading to the award of a BA [International] is highly recommended. Opportunities in third year have included:

- University of Texas at Austin, USA
- University of California, USA
- University of Perugia, Italy
- University of Konstanz, Germany

### KEY FACT

Mathematics and Statistics were ranked by *The New York Times* as the best degrees to study for the 21st century. There is a real shortage of qualified mathematicians and statisticians. Despite difficult economic conditions our graduates perform successfully in the jobs market.

**Patrick Doohan**  
STUDENT

I decided to study the BA in Mathematical Studies at UCD because of the huge variety of interesting topics available. I was taught by world-class lecturers and mathematicians who are at the forefront of exciting research and discovery. The BA provides an excellent foundation both for employment and further study, and I am applying for a Masters in Mathematical Modelling next year.

### Find out more

[www.ucd.ie/international](http://www.ucd.ie/international)

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### Other courses of interest

Economics →43  
Statistics →62