

# Mathematical Sciences BSc

College of Science,  
Engineering and Food  
Science



University College Cork, Ireland  
Coláiste na hOllscoile Corcaigh

## Introduction

Mathematical Sciences allows you to study all aspects of mathematics including Financial Mathematics and Actuarial Science, options with Physics, or a Single Honours in Mathematical Sciences.

Mathematical Science underpins science, technology, engineering, finance, software and countless other modern developments. If you enjoy mathematics then this route offers you an exciting and challenging degree.

## Why Study

First year provides a broad introduction to pure mathematics, applied mathematics and statistics. At the end of first year you decide which degree programme you would like to follow. During subsequent years you build a solid foundation in mathematics, applied mathematics, statistics, and actuarial science/financial mathematics if you take FMAS. You meet new and stimulating topics and see topics that you studied in school in a new light. You learn to apply these concepts and techniques in a real world context.

You gain important programming skills in a mathematical context, experience of working in groups, and acquire written and oral presentation skills through project work and research.

## Careers

Graduates possess technical, computational and numeracy skills, as well as presentation skills and teamwork experience, all of which are highly valued by employers. A mathematical science degree can lead to a widerange of careers, in fields such as management consultancy, banking, actuary, accountant, options trading, scientific research, software/computing, pharmaceutical and biotechnological industries, engineering-based industries such as electronics.

## Further Study

- Higher Diploma in Statistics
- MSc in Mathematical Modelling and Scientific Computing
- MSc in Data Science and Analytics
- Research Masters in Mathematics, Applied Mathematics/ Mathematical Physics, and Statistics
- MPhil in: Mathematics, Applied Mathematics and Mathematical Studies
- PhD in Mathematics, Applied Mathematics, Statistics and Mathematical Studies.

## CK407

**DURATION** 4 Years

**APPROX. INTAKE** 35

**MINIMUM POINTS 2016** 560

**POINTS RANGE 2016** 560-625

**LEAVING CERTIFICATE ENTRY**

**REQUIREMENTS** H5 in two subjects, and O6/H7 in four other subjects in the Leaving Certificate from Irish, English, Mathematics, and three other subjects recognised for entry purposes

**ADDITIONAL REQUIREMENT** H3 in Mathematics

**MATURE PLACES** 3

**COURSE PAGE ONLINE** [www.ucc.ie/en/ck407](http://www.ucc.ie/en/ck407)

## CONTACT INFORMATION

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**[www.ucc.ie/en/matsci](http://www.ucc.ie/en/matsci)**





## KEY FACTS

- You will obtain a top class numerate degree from one of the strongest mathematical sciences departments in the country
- The emphasis on developing problem solving skills across a range of disciplines is highly regarded by employers
- Our graduates have an excellent track record in career development and postgraduate study
- We have strong links with local, national and international companies, and a strong international reputation in research

### Year 1 Modules

**CORE:** **AM1052** Introduction to Mechanics (5 credits); **AM1053** Introduction to Mathematical Modelling (5 credits); **AM1054** Mathematical Software (5 credits); **MA1057** Introduction to Abstract Algebra (5 credits); **MA1058** Introduction to Linear Algebra (5 credits); **MA1059** Calculus (5 credits); **MA1060** Introduction to Analysis (5 credits); **ST1051** Introduction to Probability and Statistics (5 credits)

### Years 2, 3 & 4

**STUDENTS SELECT ONE DEGREE STREAM FROM:**

**BSc Single Honours**

Financial Mathematics and Actuarial Science;  
Mathematical Sciences

**OR**

**BSc Joint Honours**

Applied Mathematics and Physics;  
Mathematics and Physics

#uccmakeyourmark

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