

Mathematics with a Year in Industry BSc (Hons)

UCAS Code: G102 | Duration: 4 years | Full-time | Hope Park | 2021/2022

Placement year opportunities available



Course Overview

Mathematics is a fascinating and exciting subject. It is the language of modern business and commerce, engineering, science and technology and is as old as mankind. At Liverpool Hope, you will develop a passion and enthusiasm for mathematics and its applications. Mathematics encompasses many analytical and numerical methods that are used to solve scientific and industrial problems.

Mathematics at Liverpool Hope has been designed to help you develop strong analytical and numerate abilities and skills so that you learn how to look at problems, break them down into simpler questions and then solve them.

By the end of the degree, you will be confident in tackling real world problems mathematically and will have experience in applying mathematics in an industrial or scientific environment. By studying with us, you can expect to be given not only first class tuition and teaching, but first class support. We pride ourselves on providing an excellent student experience, and the academics at Liverpool Hope work hard to ensure that you get the most from your degree. The degree will cover all areas of mathematics including pure mathematics, applied mathematics and statistics.

Entry Requirements

The standard offer level is 112 UCAS tariff points. You also need an A Level (or equivalent) in Mathematics.

Fees and Additional Costs

The tuition fees for 2021/2022 are £9,250 for full-time undergraduate courses.

As well as your tuition fees, you need to consider the cost of books, software, and general computer consumables such as USB flash drives and printing. We estimate this to cost around £300.

You will also need to consider the cost of your accommodation each year whilst you study at university. Visit our accommodation webpages for further details about our Halls of Residence: www.hope.ac.uk/halls



LIVERPOOL
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1844



 **Institute of
mathematics**
& its applications

CONTACT

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Mathematics with a Year in Industry BSc (Hons) Curriculum

Year One

- Complex Numbers
- Geometry
- Introduction to Matlab and Programming
- Linear Algebra
- Mathematical Thinking: Logic, Numbers and Sets
- Mathematical Writing
- Applications of Mathematics
- Difference Equations
- Mathematical Communication
- Numerical Analysis
- Probability Theory

Year Two

- Differential Geometry
- Linear Algebra
- Multivariable Calculus
- Number Theory
- Statistics and R Programming
- Graph Theory
- Laplace Transforms
- Numerical Analysis
- Ordinary Differential Equations
- Partial Differential Equations
- Probability and Distributions

Year Three

You spend your third year on a compulsory placement in industry.

Year Four

A selection of topics taken from:

- Algebraic Geometry
- Calculus of Variations
- Chaos Theory
- Complex Analysis
- Dissertation/Research Project
- Group Theory and Algebra
- Hamiltonian Systems
- Integrable Systems
- Nonlinear Waves
- Orthogonal Polynomials
- Perturbation Theory
- Quantum Mechanics

Work placement opportunities

This degree includes a compulsory year in industry placement, giving you the opportunity to gain real workplace skills highly sought after by employers.

COURSE STRUCTURE

Teaching on this degree is structured into lectures, seminars and tutorials.

In your first year of study there are approximately 12 teaching hours each week, which reduces to approximately 10 teaching hours in your second and fourth years.

On top of teaching hours, you are also expected to spend a number of hours studying independently each week, as well as studying in groups to prepare for any group assessments you may have.

ASSESSMENT AND FEEDBACK

There are a number of assessments across your four years of study, including written exams, portfolios and coursework.

You will be given feedback on your assessments, and you will have the opportunity to discuss this with your tutor in more detail.



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