UNIVERSITY OF LIVERPOOL

BSc (Hons)

Mathematical Sciences BSc (Hons) (Foundation, 4 year route with Carmel College)

UCAS code G108

Entry requirements	Study mode	Duration
A level: CDD	Full-time	4 years

Apply by: **14 January 2026**
Starts on: **28 September 2026**

About this course

This is a four year programme with the first year being a foundation year taken at Carmel College. After completion of the first year you can then progress on to your chosen programme within the Department of Mathematical Sciences.

Introduction

A degree in Mathematical Sciences from the University of Liverpool is a highly regarded qualification that will open many doors. From core maths to theoretical physics, financial maths to mathematical biology, you can choose quality programmes and options that match your ambitions.

This programme provides a four-year route to several BSc (Hons) degree programmes offered in the Department of Mathematical Sciences. For the first year, you will be based at Carmel College, St Helens.

Students follow the Foundation Year (at Carmel College) and then can opt to follow one of a wide range of mathematical sciences programmes offered. Carmel College, St Helens, about nine miles from the university campus, offers small class sizes and high standards of academic achievement.

Find information about what essential and optional modules you will need to take during your Year 0 at Carmel College to progress to your chosen University of Liverpool degree programme in our guide to progression routes.

What you'll learn

- A strong foundation to progress on to your chosen BSc programme
- How to present and communicate clearly
- Teamwork
- Problem solving

Routes

- Applied Mathematics BSc (Hons)
- Mathematics BSc (Hons)
- Mathematics and Computer Science BSc (Hons)
- Mathematics and Economics BSc (Hons)
- Mathematics and Philosophy BA (Hons)
- Mathematics and Statistics BSc (Hons)
- Mathematics with Finance BSc (Hons)
- Mathematics with Languages BSc (Hons)
- Mathematics with Ocean and Climate Sciences BSc (Hons)
- Physics and Mathematics BSc (Hons)

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Course content

Discover what you'll learn, what you'll study, and how you'll be taught and assessed.

Year Zero

The first year you will be based at Carmel College. At the College you will follow three foundation modules chosen from Mathematics, Chemistry, Physics, Biology or Geography. Your module choice depends on the programme you wish to follow after the foundation year.

Programme details and modules listed are illustrative only and subject to change.

Teaching and assessment

How you'll learn

At the University of Liverpool, you will be taught through a diverse blend of engaging teaching methods, including lectures, tutorials, practical classes, video content, interactive learning sessions, independent study, and supervised project work.

The department of mathematical sciences offers a vibrant, stimulating, and supportive learning environment with highly motivated and exceptionally qualified staff, renowned for their world-leading research and teaching.

In year 1 of the degree programmes, lectures are supplemented by a thorough system of small-group tutorials; computing work is carried out in supervised practical classes. Key study skills, presentation skills and group work start in the first year and are developed later in the programme. The emphasis in most modules is on the development of problem-solving and critical thinking skills, which are regarded very highly by employers.

How you're assessed

Each module has an assessment scheme tailored to fit its syllabus. This might include traditional written exams, class tests, assignments, projects, group work, or online exercises with automatic marking and immediate feedback.

Liverpool Hallmarks

We have a distinctive approach to education, the Liverpool Curriculum Framework, which focuses on research-connected teaching, active learning, and authentic assessment to ensure our students graduate as digitally fluent and confident global citizens.

The Liverpool Curriculum framework sets out our distinctive approach to education. Our teaching staff support our students to develop academic knowledge, skills, and understanding alongside our **graduate attributes**:

- Digital fluency
- Confidence
- Global citizenship

Our curriculum is characterised by the three **Liverpool Hallmarks**:

- Research-connected teaching
- Active learning
- Authentic assessment

All this is underpinned by our core value of **inclusivity** and commitment to providing a curriculum that is accessible to all students.

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Careers and employability

A degree in mathematics provides access to an almost limitless range of rewarding career paths. As a graduate with a mathematics degree from the University of Liverpool, you'll have an extremely valuable set of analytical and critical thinking skills that employers value, enabling you to pursue careers in almost any field.

Graduates with a mathematics-based degree are in high demand across a broad spectrum of industries, thanks to their expertise in quantitative analysis, problem-solving, and mathematical modelling. Some of the key career paths include:

- Data Science and Analytics: Mathematics graduates are well-equipped to work as data scientists, data analysts, or business analysts. Their skills in statistical modelling, machine learning, and data interpretation are highly sought after in sectors such as finance, healthcare, and technology.
- Engineering and Technology: Mathematics graduates can work in engineering roles, including systems engineering, computational modelling, and simulation. They may also contribute to software development, particularly in fields that require complex algorithms, like AI and cybersecurity.
- Operations Research and Logistics: Companies in manufacturing, transportation, and supply chain management often hire mathematics graduates to optimise processes, improve efficiency, and reduce costs. Roles include operations research analyst, supply chain planner, and logistics coordinator.
- Healthcare and Biostatistics: Mathematics is increasingly used in medical research, epidemiology, and healthcare analytics. Careers may include a biostatistician, health data analyst, or mathematical modeller in disease forecasting.

The versatility of a mathematics-based degree allows graduates to enter nearly any sector that requires mathematical modelling, statistical analysis, and algorithmic problem-solving. The growing demand for data-driven decision-making in today's world ensures that career prospects remain strong, with opportunities for advancement and specialisation across various fields.

Typical types of work our graduates have gone onto include:

- actuarial trainee analyst in the audit practice
- graduate management trainee risk analyst
- trainee chartered accountant on a graduate business programme.

Recent employers of our graduates include:

- Aston University

- Deloitte
- EuroMoney Training
- Norwich Union
- Venture Marketing Group
- Wolsley Group.

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Fees and funding

Your tuition fees, funding your studies, and other costs to consider.

Tuition fees

UK fees (applies to Channel Islands, Isle of Man and Republic of Ireland)

Full-time place, per year - £9,535
Foundation year fee - £7,500
Year abroad fee - £1,385 (applies to year in China)

Following the foundation years, standard course fees apply.

Fees are for academic year 2025/26.

Tuition fees cover the cost of your teaching and assessment, operating facilities such as libraries, IT equipment, and access to academic and personal support. Learn more about paying for your studies.

Additional costs

You cannot apply for the foundation programme if you require a visa to study in the UK. However, some UK-based international students may be eligible to apply. If you are eligible to apply, your fee status assessment will determine if you pay home or international fees.

Find out more about the additional study costs that may apply to this course.

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Entry requirements

The qualifications and exam results you'll need to apply for this course.

A levels

CDD
A typical offer is likely to be CDD at A level, in related subjects. Students with alternative A level combinations are welcome to apply but should expect to be made higher offers.

T levels

T levels considered in a relevant subject and specialism.

Applicants should contact us by completing the enquiry form on our website to discuss specific requirements in the core components and the occupational specialism.

GCSE

All applicants must have a minimum of five GCSEs at grade C/4 or above, including English Language, Mathematics and two Sciences. Core and Additional Science/Dual Science acceptable as the two Sciences. Alternatively, if separate sciences are being studied then one of these must be GCSE Physics. Applicants over 21 can be considered on GCSEs alone.

International qualifications

Select your country or region to view specific entry requirements.

Many countries have a different education system to that of the UK, meaning your qualifications may not meet our direct entry requirements. Although there is no direct Foundation Certificate route to this course, completing a Foundation Certificate, such as that offered by the University of Liverpool International College, can guarantee you a place on a number of similar courses which may interest you.

English language requirements

You'll need to demonstrate competence in the use of English language, unless you're from a majority English speaking country.

We accept a variety of international language tests and country-specific qualifications.

International applicants who do not meet the minimum required standard of English language can complete one of our Pre-Sessional English courses to achieve the required level.

IELTS

6.5 overall, with no component below 5.5

TOEFL iBT

88 overall, with minimum scores of listening 17, writing 17, reading 17 and speaking 19. TOEFL Home Edition not accepted.

Duolingo English Test

125 overall, with speaking, reading and writing not less than 105, and listening not below 100

Pearson PTE Academic

61 overall, with no component below 59

LanguageCert Academic

70 overall, with no skill below 60

Cambridge IGCSE First Language English 0500

Grade C overall, with a minimum of grade 2 in speaking and listening. Speaking and listening must be separately endorsed on the certificate.

Cambridge IGCSE First Language English 0990

Grade 4 overall, with Merit in speaking and listening

Cambridge IGCSE Second Language English 0510/0511

0510: Grade B overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0511: Grade B overall.

Cambridge IGCSE Second Language English 0993/0991

0993: Grade 6 overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0991: Grade 6 overall.

Cambridge ESOL Level 2/3 Advanced

176 overall, with no paper below 162

Pre-sessional English

Do you need to complete a Pre-sessional English course to meet the English language requirements for this course?

The length of Pre-sessional English course you'll need to take depends on your current level of English language ability.

Pre-sessional English in detail

If you don't meet our English language requirements, we can use your most recent IELTS score, or the equivalent score in selected other English language tests, to determine the length of Pre-sessional English course you require.

Use the table below to check the course length you're likely to require for your current English language ability and see whether the course is available on campus or online.

Your most recent IELTS score	Pre-sessional English course length	On campus or online
6.0 overall, with no component below 5.5	6 weeks	On campus
5.5 overall, with no component below 5.5	10 weeks	On campus and online options available
5.5 overall, with no more than one component below 5.5, and no component below 5.0	12 weeks	On campus and online options available
5.5 overall, with no component below 4.5	20 weeks	On campus
5.0 overall, with no component below 4.5	30 weeks	On campus
4.5 overall, with no more than one component below 4.5, and no component below 4.0	40 weeks	On campus

If you've completed an alternative English language test to IELTS, we may be able to use this to assess your English language ability and determine the Pre-sessional English course length you require.

Please see our guide to Pre-sessional English entry requirements for IELTS 6.5 overall, with no component below 5.5, for further details.

Alternative entry requirements

- If your qualification isn't listed here, or you're taking a combination of qualifications, contact us for advice
- Applications from mature students are welcome.

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