Mathematics & Statistics
Welcome to Mathematics & Statistics

We are a diverse and inclusive department, with students and staff from a wide range of backgrounds. I am delighted that you are considering studying with us.

FRIENDLY AND COLLABORATIVE
We offer a wide range of degree schemes, including some combined programmes delivered in collaboration with departments across the University. Our curriculum provides a broad range of topics in the earlier years, while allowing specialisation later on. By your final year, you will be studying material directly influenced by our research interests in algebra, analysis, discrete mathematics, probability and statistics. The pace will be challenging but the result will be rewarding.

Each of our students is important to us. We strive to maintain our friendly and welcoming atmosphere, with accessible staff who are happy to discuss any aspect of your studies. We will offer you regular meetings with your tutors and lecturers, and our strong academic support systems help ensure you stay on track to realise your potential.

YOUR CAMPUS
Set in 560 acres of parkland, the University provides a vibrant and safe environment in which to live, study and grow as a person. You can enjoy a wide range of extra-curricular activities, including our very own Maths & Stats Society (LUMASS).

GAIN VALUABLE EXPERIENCE
You will have the opportunity to access work experience in a variety of ways. Our placement degrees include an integrated year spent with a relevant industry. You can also apply for paid internships at local, regional or even national level, through our Science and Technology Internship Scheme. Recent partners have included GCHQ, EDF Energy and BT.

Our programmes also include projects and group work to develop broadly applicable skills, which will be valuable for your future and complement the numeracy and analytical skills you will gain from studying mathematics and statistics.

OUR PROMISE TO YOU
When the time comes for you to graduate, we are confident that you will be well equipped for your next steps. We expect you to work hard, but we will help you gain the full benefit from your efforts.

I look forward to welcoming you.

Dr Alexander Belton
Head of Department
Why Lancaster?

We are a highly ranked and reputable department, widely recognised for our excellence in teaching and research.

WORLD RANKED

In the 2018 QS World Rankings, we placed in the Top 100 for Statistics and the Top 250 for Mathematics.

UK TOP 5

We are 5th in UK for Mathematics according to the Guardian University Guide (2019).

WORLD-LEADING RESEARCH

We were ranked 5th in the UK for research in the 2014 REF. This means that you will be taught by some of the world’s leading researchers in mathematics and statistics.

ACCREDITED

We have accreditation from the Institute of Mathematics and its Applications (IMA) and the Royal Statistical Society (RSS), meaning graduates are eligible for RSS Graduate Statistician status. These are subject to criteria fulfillment.

STUDY ABROAD

All of our main degree programmes offer Study Abroad opportunities with the chance to spend a year studying in North America or Australasia.

PLACEMENT YEAR

A number of our programmes have a placement pathway offering you the opportunity to gain work experience during your degree.

For more information visit www.lancaster.ac.uk/maths
World-class teaching

Our academics are leading in their fields of research and deliver enthusiastic and engaging teaching through a range of methods.

LECTURES
Lectures will introduce you to course content and you will usually have four of these per week in each module. They are taught in large groups with fellow students from across the year group.

Whilst this form of teaching is mostly led by the lecturer, we do encourage you to actively participate.

We will also provide you with lecture notes which have space for annotation during the lecture. Our students find this active form of learning useful for developing their knowledge and understanding of lecture material.

WORKSHOPS
Our weekly workshops are designed to give the opportunity for enhanced support and guidance.

PROBLEM SOLVING
In your first year, we run problem solving classes designed to develop your skills to tackle university-style mathematics. Working in small groups, you will apply your mathematical knowledge to a set of problems.

COMPUTER LABS
Some practical work is undertaken in specialist computer labs. This involves working with statistical and mathematical software to develop skills and enhance your employability.

ASSESSMENT

Coursework
- Weekly worksheets including problem solving tasks and lab work

Examinations
- Taken in May/June
- One paper per module

End of module tests
- First year only
- End of each 5 week module
- These help us to monitor your progress so that we can ensure we provide you with as much support as we can

RHYS WARHAM
Second Year, Lonsdale College
MSci (Hons) Mathematics with Statistics

“The general quality of teaching and feedback we receive is very high, and the Department is very interactive with students. Lecturers provide lots of additional resources and helpful materials through Moodle sites, ensuring that you are well supported whilst studying their modules. The Department actively seeks feedback from students and ensures the relevant changes are made to create a course which best suits the students’ needs.”
Our programmes

We offer degrees in both Mathematics and Statistics with opportunities for studying abroad, a placement year and integrated Masters.

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Mathematics with Statistics</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>G100 BSc Mathematics</td>
<td>G101 MSci Mathematics</td>
<td>G300 BSc Statistics</td>
</tr>
<tr>
<td>G102 BSc Mathematics (Placement)</td>
<td>G103 MSci Mathematics (Study Abroad)</td>
<td>G303 MSci Statistics</td>
</tr>
<tr>
<td>G1G3 BSc Mathematics with Statistics</td>
<td>G1GJ MSci Mathematics with Statistics</td>
<td>G302 BSc Statistics (Placement)</td>
</tr>
<tr>
<td>GCG3 BSc Mathematics with Statistics (Placement)</td>
<td>G1GH MSci Mathematics with Statistics (Study Abroad)</td>
<td>G301 MSci Statistics (Study Abroad)</td>
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</table>

FLEXIBILITY
You are able to transfer between these programmes up until the end of the second year, subject to fulfilling progression criteria.

YEAR IN INDUSTRY
We offer a pathway in which you will spend the third year of your four year degree working in industry. Find out more about this opportunity on page 22.

COMBINED PROGRAMMES
We offer a number of combined degrees, you can find more details on page 16.

STUDY ABROAD
More information about studying abroad can be found on page 21.

For more information visit www.lancaster.ac.uk/maths

"Everyone is so friendly and welcoming. There is a lot of support on offer from lecturers, workshop tutors and your academic advisor which gives you confidence with your workload. I enjoy the assessments being spread over a period of time which reduces pressure and stress towards exam time, it is always clear when there are deadlines to meet which helps when organising your work and social life."

CHLOE LAWRENCE
Third Year, Cartmel College
BSc (Hons) Mathematics
Entry requirements

The A level entry requirements for each of our programmes are listed below. For alternative qualifications and international entry requirements, please contact ugadmissions@lancaster.ac.uk.

<table>
<thead>
<tr>
<th>Programme of Study</th>
<th>Including Maths (at Grade A)</th>
<th>Including Maths and Further Maths (at least one at Grade A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc/BSc(Placement)/MSci/MSci (Study Abroad) - Mathematics - Statistics - Mathematics with Statistics</td>
<td>AAA†</td>
<td>AAB†</td>
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<tr>
<td>BSc/BSc (Industry)/MSci Financial Mathematics</td>
<td>AAA</td>
<td>AAB</td>
</tr>
<tr>
<td>BSc/MSci Computer Science and Mathematics</td>
<td>AAA</td>
<td>AAB</td>
</tr>
<tr>
<td>BA Mathematics and Philosophy</td>
<td>AAB†</td>
<td>ABB</td>
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<tr>
<td>BA French Studies and Mathematics</td>
<td>AAB (Language Grade B)</td>
<td>ABB (Language Grade B)</td>
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<tr>
<td>BA German Studies and Mathematics</td>
<td>AAB (Language Grade B)</td>
<td>ABB (Language Grade B)</td>
</tr>
<tr>
<td>BA Spanish Studies and Mathematics</td>
<td>AAB (Language Grade B)</td>
<td>ABB (Language Grade B)</td>
</tr>
<tr>
<td>BSc/BSc (Industry) Mathematics, Operational Research, Statistics and Economics (MORSE)</td>
<td>AAA</td>
<td>AAB</td>
</tr>
<tr>
<td>BSc/BSc (Industry) Accounting, Finance and Mathematics</td>
<td>AAB including Maths or Further Maths Grade A</td>
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<tr>
<td>BSc/BSc (Industry) Economics and Mathematics</td>
<td>AAB including Maths and Further Maths Grade A</td>
<td></td>
</tr>
<tr>
<td>BSc Theoretical Physics with Mathematics</td>
<td>AAB including Maths and Physics at grade A</td>
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<tr>
<td>MSci/MSci (Study Abroad) Theoretical Physics with Mathematics</td>
<td>AAA including Maths and Physics</td>
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</tbody>
</table>

ADDITIONAL TESTS - TMUA & STEP †

Whilst not required, we do recognise the value of additional tests you may take and this is reflected in the offers that we make to our applicants.

Test of Maths for University Admission (TMUA)

The Test of Maths for University Admission (TMUA) is set by Cambridge Assessment and sat in November. TMUA is designed to test your problem-solving and readiness for university-level mathematics. There are two multiple-choice question papers, each lasting 75 minutes.

Results are available at the end of November - you will receive a grade ranging from 1.0 to 9.0. A strong performance of 4.5 or above in the TMUA is very impressive. If you sit the TMUA and perform sufficiently well you will normally receive a lower offer from us. Sitting the test is optional and if you choose not to sit the test, this won’t harm your chances of receiving an offer from us.

Sixth Term Examination Papers (STEP)

The Sixth Term Examination Papers in Mathematics consist of three papers, set by Cambridge Assessment, and are sat in June. They are designed to really test your problem-solving skills. Each paper lasts three hours and contains thirteen relatively long questions, all of which are optional - you answer as many of them as you wish, up to a maximum of six questions. You may enter any combination of the three papers.

We value the way that STEP develops advanced problem-solving skills and all our standard offers include an alternative, lower offer that includes a pass (Grade 3) in any STEP. Sitting STEP is optional, and if you choose not to sit STEP, this won’t harm your chances of receiving an offer from us. Sitting the test is optional and if you choose not to sit the test, this won’t harm your chances of receiving an offer from us.

Before you receive an offer

If you complete your test before the point of offer, we will take your test results into account at this stage.

After you have received an offer

We will review your offer taking your new test results into account and may amend it to a lower offer.

Adjusted Offers

If you meet our requirements for TMUA or STEP you will normally receive an alternative offer with a one grade reduction.

For more information visit www.lancaster.ac.uk/maths

1 Adjusted offers made in light of TMUA or STEP results are only applicable where indicated in the table.
What will I study?

FIRST YEAR

For the majority of our degree schemes, you will follow a common core first year programme. This involves two sets of modules and a minor subject.

MATH 100
MATHEMATICAL METHODS

Calculus
Calculus is concerned with derivatives (which measure rates of change) and integrals (which measure area) and is usually introduced as rules for differentiating or integrating simple functions. You will see how to use the notion of a limit to define derivatives and integrals for many more functions. You will also study complex numbers, which are important in themselves and also have practical uses (in electrical engineering, for example).

Probability
In this module you will explore the ideas of probability models, which characterise the outcomes of different types of experiment that involve a chance or random component.

Further Calculus
The graphs of functions of two real variables look like surfaces, with hills, valleys and other features. This module extends calculus to deal with these, introducing partial derivatives, and explains how repeated integration may be used to calculate volume. You will also be introduced to techniques for solving elementary differential equations.

Statistics
Statistical thinking plays a key role in addressing a scientific problem where the recorded data is subject to systematic and random variations. This module will provide you with the tools to formulate appropriate models and implement the associated critical techniques.

Linear Algebra
Matrices are a concise way of writing and solving sets of simultaneous linear equations, whose connection with lines and planes is established. You will explore how matrices can be used to represent certain transformations of the plane or space and show how these transformations can be characterised by the way they behave in special directions.

MATH 110
MATHEMATICAL CONCEPTS

Numbers and Relations
Is it possible to write 84503 as a sum of the squares of two whole numbers? What is the largest whole number that exactly divides both 99457 and 75067? This module will show you how to answer these and similar questions, and explain why it is useful to do so. You will also encounter formal logic and learn about mathematical proof.

Integration and Differentiation
We take a closer look at differentiation and integration, and the relationship between the two. You will develop a much deeper understanding of calculus and see how to extend the theory to more general settings, as well gain an appreciation of the limitations of the theory through some rather surprising examples.

Geometry and Calculus
How would you find the closest point to the origin on a particular curve? What is the tangent plane to a smooth surface and how do we find it? This module begins the study of geometric objects through the use of calculus.

Linear Algebra
Matrices are a concise way of writing and solving sets of simultaneous linear equations, whose connection with lines and planes is established. You will explore how matrices can be used to represent certain transformations of the plane or space and show how these transformations can be characterised by the way they behave in special directions.

DISCRETE MATHEMATICS

We talk about set theory and discuss the different types of infinite sets that exist. We also formally introduce functions and their properties, before going on to look at counting problems and methods to solve them, and ending with graph theory. Graphs have important applications in the design and understanding of the properties of systems such as the infrastructure powering the internet, social networks such as Facebook, the London Underground network and the global ecosystem.
PART I MINOR

Our flexible Part I system allows you to take modules in another subject area. You can explore another subject of your choice alongside your main degree programme and you can choose whether or not you wish to continue with your minor course after the first year.

Entry onto minor courses is subject to meeting entry requirements and timetabling restrictions. You will choose your minor subject during your first week at Lancaster.

Some options include:
- Faculty of Science & Technology
  - Biology
  - Chemistry
  - Computer Science
  - Environmental Science
  - Management Science
- Faculty of Arts & Social Sciences
  - English Language
  - English Literature
  - European Languages
  - History
  - Philosophy
  - Politics
  - Religious Studies
  - Sociology
- Management School
  - Accounting & Finance
  - Economics
- Economics
- Computer Science
- Environmental Science
- History
- Philosophy
- Politics
- Religious Studies
- Sociology

SECOND YEAR

In your second year you will build on the content covered in first year, studying familiar topics.

You will be introduced to computational and mathematical problem solving methods including software such as R and LaTeX. Our project skills module will enhance both your subject specific and transferable skills. You will complete both an individual and group project with opportunities to develop your scientific writing, research and presentation skills.

Autumn Term
- Real Analysis
- Linear Algebra II
- Probability II
- Project Skills

Spring Term
- Complex Analysis
- Abstract Algebra
- Statistics II
- Computational Mathematics

THIRD YEAR

The third year allows for much more flexibility in terms of module choices. You are able to pick from a range of options across four key areas.

This allows you to focus on areas of the subject that are of interest to you and where your strengths lie.

You will usually take eight of the following modules:
- Pure Mathematics
  - Metric Spaces
  - Hilbert Space
  - Differential Equations
  - Linear Systems
  - Groups & Symmetry
  - Rings, Fields & Polynomials
  - Elliptic Curves
  - Representation Theory of Finite Groups
  - Number Theory
  - Combinatorics
  - Geometry of Curves & Surfaces
  - Graph Theory
- Probability
  - Probability Theory
  - Lebesgue Integration
  - Stochastic Processes
  - Financial Mathematics
- Statistics
  - Likelihood Inference
  - Bayesian Inference
  - Statistical Models
  - Time Series Analysis
  - Medical Statistics
  - Multivariate Statistics
- Vocational
  - Mathematical Education
  - Mathematical Education – Placement

Fourth Year

During the fourth year of the MSci course you will be able to choose from a range of specialist modules which link to research interests of academics within the Department. Many advanced third year modules are also available to study. Examples of possible specialist topics include:
- Assessing Financial Risk
- Epidemiology
- Clinical Trials
- Stochastic Calculus
- Computer Intensive Methods
- Galois Theory
- Longitudinal Data Analysis
- Operator Theory
- Topology and Fractals
- Lie Groups and Lie Algebras

You will also complete an MSci dissertation which can be taken in Statistics, Pure Mathematics or as an industrial project in which you will work in partnership with a company.

For more information visit www.lancaster.ac.uk/maths
Combined programmes

We collaborate with departments across the University to offer a range of combined degree programmes.

**ACCOUNTING, FINANCE AND MATHEMATICS**

This course will develop your knowledge of advanced mathematical and statistical methods and will provide you with the skills to apply this in a professional context to the fields of accounting and finance.

**FIRST YEAR**
In the first year you will study the Mathematical Methods module whilst also taking one module in Principles of Finance and an Introduction to Accounting and Finance. This will introduce you to a wide range of concepts and techniques including financial accounting, managerial finance and financial analysis.

**SECOND YEAR AND BEYOND**
In the second year, you will cover probability, statistics and linear algebra whilst also developing skills in auditing, accounting systems and management accounting. The final year develops your skills in financial accounting and will introduce you to likelihood inference. You will also enhance your employability skills through sector specific careers modules delivered as part of this programme.

**FINANCIAL MATHEMATICS**

Our Financial Mathematics programme provides a thorough grounding in finance, computing, quantitative methods and economics. This will give you a wide range of skills and knowledge that employers are looking for a career in the finance sector.

**FIRST YEAR**
You will cover the same content as the single honours programme. A third of your time will be spent studying the Introduction to Accounting and Finance module which introduces you to a wide range of concepts and techniques including financial accounting, managerial finance and financial analysis.

**SECOND YEAR AND BEYOND**
The second year will cover the topics of probability, statistics and real analysis whilst also developing your understanding of the principles of finance and introducing you to management economics. In the final year you will have the flexibility to choose from a range of relevant modules. If you are taking the MSci pathway you will have the opportunity to work on a substantial dissertation in an area of your interest from across the fields of mathematics, statistics, economics and finance.

**ECONOMICS AND MATHEMATICS**

This programme will equip you with mathematical and analytical skills whilst also developing the knowledge and tools to understand the important role of economics in government, business and society.

**FIRST YEAR**
You will study the Mathematical Methods module and will take a core module in Principles of Economics during which you will be introduced to the principles of economics both at microeconomic and macroeconomic levels. You will also study a careers module through which you will gain an insight into the graduate labour market. We strongly encourage students to take the Mathematical Concepts module too.

**SECOND YEAR AND BEYOND**
The second year covers probability, linear algebra, statistics and computational mathematics and you will also be able to choose from a range of modules within economics including Applied Economics, Econometrics and Game Theory. The final year of the course allows you to choose from a range of options offered by both departments.

**MATHEMATICS, OPERATIONAL RESEARCH, STATISTICS AND ECONOMICS (MORSE)**

Mathematics, Operational Research, Statistics & Economics (MORSE) at Lancaster is delivered collaboratively by the Department of Management Science, the Department of Economics and the Department of Mathematics and Statistics. MORSE provides its graduates with a foundation in tools and techniques used across business analytics practice.

**FIRST YEAR**
In the first year you will study the Mathematical Methods module whilst also being introduced to key topics in other departments: Business Analytics, Principles of Economics and Statistics & Computing for Management.

**SECOND YEAR AND BEYOND**
The second year will cover linear algebra, statistics, business modelling and optimisation. You will also develop knowledge of both micro and macroeconomics. The final year will allow you to specialise in areas that suit your interests, choosing modules from across all relevant departments.

For more information visit [www.lancaster.ac.uk/maths](http://www.lancaster.ac.uk/maths)
Studying mathematics and philosophy as a combination will develop your reasoning, logic and analytical skills in both a numerical and non-numerical context. This will prepare you well for a wide range of careers.

**FIRST YEAR**
The first year mathematics and statistics content is common to the single honours degrees, however you will also spend a third of your time studying the first year Introduction to Philosophy which introduces you to knowledge and reality, critical thinking, political philosophy and ethics.

**SECOND YEAR AND BEYOND**
In the second year, you will be required to study real and complex analysis, and both linear and abstract algebra. For the remainder of your second year and your third year, you will be able to choose from a wide range of modules offered by Mathematics & Statistics and the Department of Politics, Philosophy and Religion.

**COMPUTER SCIENCE AND MATHEMATICS**
BSc - GG14
MSci - GG1K

Mathematics underpins technology and so these two subjects create an exciting combination. The computer science component of this degree covers languages and logic, software engineering, communications and systems. The course contains a careful balance of theory and practice which can lead to jobs in all areas of Industry.

**FIRST YEAR**
Covering the common core content of the single honours programmes, you will also be introduced to the fundamentals of computer science and to software development.

**SECOND YEAR AND BEYOND**
In the second year, you will complete a group project in computer science and will enhance your knowledge of software design whilst introducing you to Human-Computer Interaction Technology. You will also be required to study linear algebra plus three other subjects from Mathematics & Statistics. The third year allows for more flexibility and you will be required to take four modules in each of the subject areas.
Those on the MSci pathway will complete a dissertation in mathematics or statistics or may complete a computer science project. You will also be able to choose from a wide range of specialist modules linked to the research expertise of the two departments.

This programme will allow you to study a European language to an advanced level whilst also gaining strong analytical skills. Spending your third year abroad, you will get the chance to put your language skills into practice whilst experiencing a new culture. This programme prepares you well for a range of careers such as in the diplomatic service, civil service and teaching.

**FIRST YEAR**
You will study the Mathematical Methods module and take a core module in your chosen European language in which you will develop your speaking and writing skills and enhance your cultural knowledge. It is highly recommended that you also study the Mathematical Concepts module.

**SECOND YEAR AND BEYOND**
You will be required to take four second year mathematics modules whilst developing your oral and written skills and studying European culture modules. Following your third year abroad during which you will complete a reflective assignment, the fourth year of the course will further enhance your language skills. You will also be able to choose from a wide range of modules covering European culture, mathematics and statistics.

**THEORETICAL PHYSICS AND MATHEMATICS**
BSc - F3GC
MSci - F3G1
MSci (Study Abroad) - F3G5

This engaging programme combines pure mathematics with the theoretical concepts of physics. Mathematical models can be used to describe known facts and to predict new phenomena, the combination of the two subjects creates a challenging and exciting programme of study.

**FIRST YEAR**
You will study the Mathematical Concepts and Methods module whilst developing your knowledge of key physics concepts including mechanics, quantum physics, vector calculus, electric and magnetic fields and the thermal properties of matter.

**SECOND YEAR AND BEYOND**
Throughout the second and third year you will take a number of compulsory modules which will develop your theoretical knowledge and application skills in both mathematics and physics. In the third year you will undertake both an independent and group project based on an open-ended theoretical physics project.
For those on the MSci pathway, you will undertake a Masters project and complete a literature review. This will be on a topic of your choice from a range of options based on departmental research specialisms. You will also take three specialist modules from Physics and two specialist modules from Mathematics.
A supportive environment

We are committed to ensuring that you have the best experience possible whilst studying here.

OPEN DOOR POLICY
Academic staff who teach on our undergraduate programmes have dedicated office hours for student queries and for additional support. You will receive feedback on all work submitted and teaching staff are happy to discuss this with you if you have any concerns.

Tutors and lecturers can help if you are struggling with a particular aspect of course material or if you just need some reassurance.

ACADEMIC TUTOR
When you start at Lancaster you will be assigned an academic tutor, who will (where possible) remain your tutor for the duration of your studies at Lancaster. This is an academic member of staff who you will meet with once a term in order to check your progress and personal development. Your academic tutor can provide both academic and pastoral advice and you can arrange to meet them at any point if you feel that you would benefit from the additional support. They can provide extra feedback on coursework, give advice on module choices and discuss potential career options.

TEACHING OFFICE
The Part I and Part II coordinators, George and Julia coordinate the running of our undergraduate degrees. They deal with enquiries relating to your timetables, examinations and coursework.

However they also offer a first line of support to all students and are able to help with more general queries and to offer support with any problems or issues that you may experience whilst studying with us.

REGULAR FEEDBACK
We are committed to providing regular feedback to students. In the 2019 Guardian University League Tables we were ranked joint 1st for feedback satisfaction amongst UK mathematics departments.

You will complete assignments which will be marked by your workshop tutor and returned to you within a few days. This allows you to monitor your own progress and identify areas that you may need more support with.

Study abroad opportunities

A number of our degree programmes offer the opportunity to spend a year abroad studying at one of Lancaster’s partner institutions.

We are currently able to offer you the opportunity to study in the USA, Canada, New Zealand and Australia.

Our partner universities have been carefully selected to ensure that the course content of your third year complements the rest of your degree programme. You will study modules that are closely linked to third year modules taught at Lancaster. However, you will also have the opportunity to study additional specialist modules offered by our partner universities.

The modules that you study during your year abroad will count towards your overall degree qualification.

We have a dedicated Study Abroad Director in our Department and you will be well supported throughout the process to ensure that you have the best possible experience.

A year abroad will highlight to potential employers that you are flexible, adaptable and independent. You will also demonstrate cultural awareness and the ability to work with people from a variety of backgrounds.

For more information visit www.lancaster.ac.uk/maths
Placements and internships

PLACEMENT YEAR
A number of our programmes offer an Industry/Placement pathway in which you will spend the third year of your four year degree working full-time in a business.

You will be supported throughout the placement process, receiving advice and support to help you find the right opportunity and to prepare for all aspects of the application process.

You will also be supported throughout your time working on placement.

There are a wide number of opportunities available to students studying maths and statistics and the placement year will be a fantastic opportunity to apply the skills you have gained so far in your studies.

Many students find that a placement year helps them in deciding on the career path they would like to take and the experience you gain will certainly be a strong advantage when looking for employment opportunities after completing your degree.

INTERNSHIP SCHEME
Undertaking relevant work experience while you are at university is extremely beneficial when applying for graduate level jobs. Through our Science and Technology Internship scheme you can apply for paid work placements which give you the opportunity to practice the skills and knowledge learned during your degree.

We work with employers to offer a range of paid internships including both 3-month full-time and year-long part-time opportunities.

We work with national, regional and local companies. In recent years students have worked with a range of partners.

"My internship was with an IT company where I was able to use knowledge gained on my course and also gained new skills in web development. I felt well supported throughout the internship and would recommend the scheme to anyone. I now work as a Programmer with Bet365 - the real work experience that my internship facilitated evidenced my skills and was invaluable to my future!"

JACK CROFT
Grizedale College
MSci (Hons) Computer Science and Mathematics

For more information visit www.lancaster.ac.uk/maths
YOUR PROSPECTS
A degree in mathematics or statistics will provide you with both a specialist and transferable skillset sought after by employers across a wide range of sectors.

The advanced numerical skills you will develop will prepare you well for career paths such as accountancy, finance and banking, whilst the logical and analytical skills you will gain could help you to pursue a career in business analysis, management consultancy or in government roles.

The education sector has an increasing demand for mathematics graduates to inspire the next generation of students whether through teaching or in other education roles. We have a strong track record of graduates successfully gaining employment.

CAREERS SUPPORT
As a department we are committed to ensuring that we develop your employability skills. We have a dedicated careers officer, Dr Derek Kitson and work in partnership with the University’s Careers Service to offer a range of workshops and talks on topics such as:

- Job application processes – CVs and cover letters, interviews and assessment centres
- Careers within specific relevant fields such as finance, research, statistics and teaching
- Completing a PhD in mathematics or statistics
- Career planning

You can also access bookable and drop-in 1:1 appointments throughout the year through the University’s Careers Service.

The Department promotes a range of opportunities to meet and network with employers through events both on and off campus. This includes our annual Science and Technology Careers Fair where we invite a range of regional and national employers onto campus to talk to students about the internship, placement and graduate opportunities that they have to offer.

INTERESTED IN TEACHING?
Our third year modules in Mathematical Education provide an insight into what it would be like to complete a PGCE qualification after your degree. You will learn about current and historic issues facing mathematics education, teaching strategies and learning methods. There is also the opportunity to undertake a placement module which will give you the chance to gain hands-on experience of working in a local school.

PROJECT SKILLS MODULE
Our second year Project Skills module enhances your employability as you develop skills that prepare you well for your chosen career path.

This module includes coursework on scientific writing and using LaTeX software to prepare mathematical documents.

You will also complete your own short project in either mathematics or statistics and will work on a group project with an academic supervisor, which will involve investigative research and presenting a conclusion. Past projects have included:

- Modelling premier league football
- Symmetry in music
- Risk factors for low birth weight
- Secondary treatment in type II diabetes

For more information visit www.lancaster.ac.uk/maths

LUKE JEEVES
Third Year, Fylde College
BSc (Hons) Mathematics

“I love studying maths at Lancaster because the course is diverse and well-structured. Staff in the Department are excellent, offering continual support not just with subject content but also for future planning and careers related advice.

The atmosphere on campus makes Lancaster a great place to study and live!”

87% of our graduates are in further study or employment within 6 months of graduating (Destination of Leavers from Higher Education Survey, 2017).
How do you know if Lancaster is right for you? Visit us! You can get a feel for the Department in a variety of ways…

FIND OUT MORE
If you are looking for course content and Department news, visit www.lancaster.ac.uk/maths. For student life, see www.lancaster.ac.uk/undergraduate.

VISIT US
We would encourage you to come and visit us. Our Open Days and Campus Tours are an excellent way to find out what we have to offer and explore our campus, accommodation and the colleges. Find out more at www.lancaster.ac.uk/visit.

UNIBUDDY
Whether you have questions about what to expect in lectures, or the best days to do your laundry, head to www.lancaster.ac.uk/study/chat where you can chat to current students through our new platform called Unibuddy.

VIRTUAL TOUR
Take a virtual walk around our campus where you can learn about the college system, accommodation, study spaces and more. Visit www.lancaster.ac.uk/virtualtour.

APPLICANT VISIT DAYS
All our offer holders are invited to an Applicant Visit Day. This is a great chance to find out more about your course and studying mathematics and statistics here at Lancaster University. You will have the opportunity to meet current staff and students as well as taking part in our mini lectures. The programme for the day will include a number of presentations and activities that will help you become more informed about the Department and the University to help you decide if this is the right place for you to study.

LUMASS is a large society with students from across all year groups. Anyone is welcome to join and it is a fantastic opportunity to be able to meet new people and to socialise with fellow students. Social events are organised on a regular basis and there is something for everyone from pub quizzes to film nights. Other activities such as guest lectures are a great opportunity to expand your interest and knowledge in the subject area.

LUMASS also holds a weekly Maths Café. This is run by third and fourth year students and you can go along and access additional support with any coursework you might be struggling with.

We are pleased that the society continues to grow and believe it is a great extra-curricular activity for our students, offering a range of activities to engage with.

Meet our Admissions Team…

Dr Andrew Titman
Nicola Wylie
Dr James Groves
George Moran

For more information visit www.lancaster.ac.uk/maths
The information provided in this brochure is correct at the time of publication (June 2018) but may be subject to change as we constantly review and improve our degree programmes. This brochure does not form part of any contract between any person and the University of Lancaster.