Course Summary: March 27, 2026

Mathematics and Statistics with Foundation Year BSc Honours

- UCAS code: **G101**
- Full time
- 4 years

Gain the skills you need to pursue a career in an ever-increasing data-driven world. This Mathematics and Statistics Foundation Year degree will prepare you for one of our three-year BSc degrees.

You are currently viewing course information for entry year: **2026**

Next start date:

- September 2026

Tuition fees (Year 1)

- Home: **£9,790**
- International: **£26,400**

Entry requirements and offers

- A-Level: **AAB**
- IB: **34 points**

UCAS Institution name and code:

- NEWC / N21

Undergraduate Open Day

Start your university journey. Find where you belong. Friday, June 26 (9:00-16:00) Saturday, June 27 (9:00-16:00)

Book your place now

Course overview

This foundation year will give you the knowledge you need to progress to any of our mathematics and statistics BSc degrees.

No mathematics A-Level needed. This foundation year course is for students who don't have an A-Level, or equivalent, in mathematics.

This is a full-time programme. It covers core mathematics and statistics topics, including:

- differential calculus
- complex numbers
- problem-solving skills

You'll gain an understanding of how atomic structures influence mechanical behaviour. You'll explore key scientific principles such as:

- kinematics
- dynamics

- material properties

You'll also develop essential skills in:

- data collection
- statistical analysis
- computer systems
- programming fundamentals

You'll learn about core physics concepts, from forces and energy to atomic structure and radioactivity. This will help prepare you for further study in mathematics and statistics.

Progression

On completing the Foundation Year, you're guaranteed a place in Stage 1 of these degrees:

- Mathematics BSc Honours
- Mathematics and Statistics BSc Honours
- Data Science BSc
- Computing and Mathematics BSc

Your course and study experience - disclaimers and terms and conditions
Please rest assured we make all reasonable efforts to provide you with the programmes, services and facilities described. However, it may be necessary to make changes due to significant disruption, for example in response to Covid-19.

View our Academic experience page, which gives information about your Newcastle University study experience for the academic year 2025-26.

See our terms and conditions and student complaints information, which gives details of circumstances that may lead to changes to programmes, modules or University services.

Quality and ranking

Professional accreditation and recognition

All professional accreditations are reviewed regularly by their professional body.

Modules and learning

Modules

The information below is intended to provide an example of what you will study.

Most degrees are divided into stages. Each stage lasts for one academic year, and you'll complete modules totalling 120 credits by the end of each stage.

Our teaching is informed by research. Course content may change periodically to reflect developments in the discipline, the requirements of external bodies and partners, and student feedback.

Optional module availability
Student demand for optional modules may affect availability.

Full details of the modules on offer will be published through the Programme Regulations and Specifications ahead of each academic year. This usually happens in May.

To find out more please see our terms and conditions

You'll cover core mathematics and statistics topics, including:

- differential calculus
- complex numbers
- problem-solving skills

You'll also complete a project during your studies.

Modules

Compulsory Modules	Credits
Statistics	10
Group Project	10
Mechanics	10
Core Mathematics A	30
Core Mathematics B	30
Introduction to Computing	10
Concepts in Thermal and Quantum Physics	10
The Physics of Oscillations	10

Teaching and assessment

Teaching methods

You'll learn through:

- lectures
- problem classes
- tutorials and drop-in sessions
- practical computer classes and computer-based assessments
- data collection and analysis

You'll also engage in independent study. You'll have full support and guidance on selecting and using relevant reading materials.

Assessment methods

You'll be assessed through a combination of:

- Coursework
- Examinations – practical or online
- Group work
- Projects

Skills and experience

Practical skills

You'll develop the ability to integrate taught theory and analytical methods with problem-solving and practical skills. Through hands-on learning you'll discover how to apply mathematical formalism to some fundamental problems in physics.

You'll also spend time in our computer labs, and will graduate with the knowledge simple algorithms and discuss principles of computer programming.

Business skills

Throughout your degree, you'll develop a range of transferable skills, including:

- analytical writing
- report writing
- project management
- teamwork

Student stories

The versatility of Mathematics is something that appealed to me greatly, it widened my job prospects and will allow me to go down the career I'm interested in.

Read more about Amruth's experience studying a Mathematics BSc

Facilities and environment

Facilities

You'll join the School of Mathematics, Statistics and Physics based in the Herschel Building.

A state-of-the-art learning environment will support your studies and you'll have access to extensive IT facilities for teaching and self-study, including:

- computer-based exercises with instant review of model solutions
- problem-solving video tutorials
- recording system for video capture of lectures, which you can download and watch again to help with your revision

The Herschel Building also has dedicated study and social spaces, and a computing area.

Support

We take your health and wellbeing seriously and are committed to supporting you throughout your studies so you can fulfil your potential at university. This support includes:

- a personal tutor who is an academic member of staff who can help you with academic and personal issues throughout your degree
- a peer mentor scheme which pairs you with a current student from your course to help you navigate your first year at university
- a student-staff committee, to give you an opportunity to have a say in how your degree works
- Student Wellbeing Advisors who can offer comprehensive listening and support and signpost you to other University support services or external support agencies

Transition Officer

A dedicated staff member is here to support you in transitioning from school to university study.

The Transition Officer works with Stage 1 undergraduates to provide:

- Stage 1 pastoral and academic support
- attendance and academic performance monitoring
- Stage 1 induction
- weekly drop-ins

You'll also benefit from our:

- induction programme, including social events, to help you settle in quickly
- activities and events run by our student-run society, MathSoc
- homework classes to help with assignments

Your future

Join a network of successful graduates

This Foundation Year provides a pathway into our Mathematics BSc courses, leading to a range of career opportunities across diverse industries.

Previous graduates from our Mathematics BSc courses have gone into roles within 15 months of graduating, including:

- Data Scientist at Atom Bank
- Software Engineer at Scott Logic
- Performance and Insight Analyst at Lancashire Constabulary
- Data Services Graduate at Dyson
- Data Analyst at Experian
- Senior Information Analyst at NHS
- Mathematics Teacher at Teach First
- Training Actuary at Lloyds Banking Group
- Consultant at Deloitte
- Audit Associate at KPMG

Careers for mathematicians and statisticians

Mathematicians and statisticians have always been highly valued by employers for their analytical and problem-solving skills, and their ability to think logically and quantitatively.

These skills are in increasing demand beyond the traditional sectors of finance, with industries such as technology, healthcare, artificial intelligence, cybersecurity, data science, and engineering actively seeking mathematical expertise to drive innovation and decision-making.

Businesses have ever increasing volumes of data available and this data needs to be analysed and modelled. Our recent graduates are putting their mathematical skills into practice in sectors such as:

- utilities
- defence
- advanced manufacturing
- transportation
- energy

- sports analytics
- health economics

Maths graduates are also highly sought-after for roles in teaching.

You'll also develop key skills which are essential for the employment market such as communication, teamwork, planning, and organisation.

Benefit from strong industry links

You'll also benefit from our well-established links. Our industrial advisory board members and research colleagues influence and inform our curriculum and include representatives from businesses such as:

- Advanced Engineering Solutions
- Atkins Realis
- Azets
- Arup
- Big Spark
- Centre for Process Innovation
- Department for Environment, Food & Rural Affairs (DEFRA)
- Draeger
- National Audit Office
- National Nuclear Laboratory
- Nissan
- North Star Ventures
- Northern Gas Networks
- Northumbria Healthcare
- Roche
- Rosen Group
- Royal Meteorological Society
- Sage plc
- York & North Yorkshire Office for Policing, Fire, Crime and Commissioning

Make a difference

Follow in their footsteps

- Name: Emma
- Graduated: 2016
- Now working as: Hiscox Insurance

"It is great to be able to take the skills and knowledge I learnt at university and apply it to real-world applications."

We asked Emma to take a look back at her time at Newcastle and tell us how it has impacted her career as a catastrophe modeller.

Find out about Emma's journey

Careers support

The School of Mathematics, Statistics and Physics is supported by Careers Service and the Learning Partnerships team to support your career readiness from the moment you arrive.

You'll benefit from:

- guest lectures from alumni and industry built into the modules
- career-planning sessions from award-winning Careers service team employers regularly visiting campus and the School

There is also a Maths, Stats and Physics Employability resource which brings you the latest opportunities, adverts and news.

There is also the popular optional Stage 3 module in Career Development if you wish to further enhance your employability.

Our Careers Service is one of the largest and best in the country, and we have strong links with employers. We provide an extensive range of opportunities to

all students through our ncl+ initiative.

Visit our Careers Service website

Recognition of professional qualifications outside of the UK

If you're studying an **accredited degree** and thinking about working in Europe after you graduate, the best place to find current information is the UK Government's guidance on recognition of UK professional qualifications in EU member states. This official resource explains whether your profession is regulated in another country, what steps you need to take, and which organisation you should contact.

Find out more...

- Go online for information about our full range of degrees: **www.ncl.ac.uk/undergraduate**
- Watch videos about student life in Newcastle by visiting our YouTube channel at **www.youtube.com/@newcastleuni**
- Watch a virtual tour of our campus at **https://youtu.be/vJUfHcqB7l8?si=8IUrf7kTxXbgdfr1**
- Book for an Open Day to come and see us in person **www.ncl.ac.uk/openday**
- Contact us online at **www.ncl.ac.uk/enquiries** or phone +44 (0)191 208 3333

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