Course Summary: April 18, 2025

Mathematics with Business BSc Honours

- UCAS code: **G1N4**
- Full time
- 3 years

This degree combines mathematics and statistics with the major processes of business management.

You are currently viewing course information for entry year: **2025**

Next start date:

- September 2025

Tuition fees (Year 1)

- Home: **£9,535**
- International: **£25600**

Entry requirements and offers

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

View contextual offers

UCAS Institution name and code:

- NEWC / N21

Course overview

Our Mathematics with Business BSc degree will teach you to apply mathematics and statistics in the business world. Newcastle University Business School will teach your specialist modules.

You'll spend most of your time studying mathematics and statistics. You'll also have the flexibility to tailor your studies to suit your interests.

You'll complement this with business management, with topics in:

- general management theory and practice
- interpreting company accounts
- human resource management
- ethics and corporate governance

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 2024-25.

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 spend two-thirds of your time studying pure mathematics, applied mathematics, algebra, probability and statistics. You'll complement this with key management, business and accounting topics.

Modules

Compulsory Modules	Credits
Introduction to Non-Specialist Accounting and Finance	20
Introduction to Management and Organisation	20
Introductory Algebra	20
Introductory Calculus and Differential Equations	20
Multivariable Calculus	10
Real Analysis	10
Introduction to Probability and Statistics	20

You'll spend two-thirds of your time studying applied mathematics, statistics and mathematical computing. You'll complement this with key management, business and accounting topics.

You'll also choose 80 credits of optional modules.

Modules

Compulsory Modules	Credits
Interpreting Company Accounts	20
Human Resource Management	20
Optional Modules	**Credits**
Linear Algebra	10

Complex Analysis	10
Algebra	10
Groups and Discrete Mathematics	10
Vector Calculus	10
Differential Equations, Transforms and Waves	10
Fluid Dynamics I	10
Scientific Computation with Python	10
Introduction to Statistical Inference	10
Introduction to Regression and Stochastic Modelling	10
Introduction to Bayesian methods	10
Computational Probability and Statistics with R	10

You'll have a lot of freedom to study areas of interest during this stage. Many of these topics are linked to our research areas.

You'll choose 80 credits of optional modules.

Modules

Compulsory Modules	**Credits**
Case Studies in Finance, Accounting and Business	20
Enterprise and Entrepreneurship with Lean Innovation	20
Optional Modules	**Credits**
Foundations of group theory	10
Linear analysis	10
Coding Theory	10

Matrix analysis	10
Metric Spaces and Topology	10
Number Theory and Cryptography	20
Representation theory	10
Curves and Surfaces	10
Methods for Differential Equations	10
Quantum Mechanics	10
Fluid Dynamics II	10
Relativity and Fundamental Particles	10
Partial Differential Equations	10
Hydrodynamic and Climate Instabilities	10
Variational Methods and Lagrangian Dynamics	10
Mathematical Biology	10
Bayesian Inference	10
Linear Models	10
Stochastic Financial Modelling	10
Statistical Inference	10
Generalized Linear Models	10
Big Data Analytics	10
Stochastic Processes	10
Topics in Statistical Modelling A	20

Information about these graphs

We base these figures and graphs on the most up-to-date information available to us. They are based on the modules chosen by our students in 2023-24.

Teaching time is made up of:

- scheduled learning and teaching activities. These are timetabled activities with a member of staff present.

- structured guided learning. These are activities developed by staff to support engagement with module learning. Students or groups of students undertake these activities without direct staff participation or supervision

Teaching and assessment

Teaching methods

You'll be taught through:

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

Assessment methods

You'll be assessed through a combination of:

- Assignments – written or fieldwork
- Examinations – practical or online

Skills and experience

Opportunities

Study abroad year

Experience life in another country by choosing to study abroad as part of your degree. You'll be encouraged to embrace fun and challenging experiences, make connections with new communities and graduate as a globally aware professional, ready for your future.

You can choose to spend up to a year studying at a partner institution overseas. Our overseas partner institutions include:

- Universiteit Leiden, Netherlands
- L-Universta ta' Malta, Malta
- Universitat Politècnica de Catalunya, Barcelona
- Technisches Universitat Munchen, Munich

There are also lots of options in North America, Australia and Asia, including:

- Buffalo, New York State
- McGill, Montreal
- University of New South Wales, Sydney
- Hong Kong
- Singapore

During your time studying abroad, you will select from a range of modules offered by your host university. Alongside taking some subject-relevant modules, you will be given greater flexibility to choose modules from different disciplines (eg Languages, Business)

If you choose to study abroad, it will extend your degree by a year.

Find out more about study abroad

Short-term global opportunities

During your degree, you can take part in short-term global opportunities in countries such as:

- USA
- Cyprus
- Hong Kong
- Singapore
- Sri Lanka

The activities range from four days to eight+ weeks, and include:

- summer schools
- internships
- volunteering
- experiential learning

Funding is available to support students who want to participate.

Work placement

Get career ready with a work placement and leave as a confident professional in your field. You can apply to spend 9 to 12 months working in any organisation in the world, and receive University support from our dedicated team to secure your dream placement. Work placements take place between stages 2 and 3.

You'll gain first-hand experience of working in the sector, putting your learning into practice and developing your professional expertise.

If you choose to take a work placement, it will extend your degree by a year. Your degree title will show you have achieved the placement year. Placements are subject to availability.

Find out more about work placements.

Facilities and environment

Facilities

You'll have access to the facilities in both the:

- School of Mathematics, Statistics and Physics, based in the Herschel Building
- Newcastle University Business School, based in our state-of-the-art building in the Newcastle Helix

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 and Business School also have 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

- a dedicated School of Mathematics, Statistics and Physics-based Student Wellbeing Advisor 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

Our Mathematics with Business BSc graduates have gone on to become:

- biostatistician
- tax advisor
- investment consultant
- accountant
- data engineer

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:

- Nissan
- Northern Gas networks
- Office for National Statistics
- Centre for Life
- Met Office
- Department for Environment, Food and Rural Affairs (DEFRA)
- Drager Safety
- Enzen Global
- PTV Group
- USGS

Make a difference

Follow in their footsteps

- Name: Harry
- Graduated: 2017
- Now working as: Jaguar Land Rover

"I work at Jaguar Land Rover on the Purchasing Graduate Scheme. My first 18-month role is in Global Purchasing Operations."

We asked Harry to take a look back at his time at Newcastle.

Find out about Harry's journey

Careers support

You will have access to Newcastle University Business School's dedicated Careers team and Graduate Outcomes team who provide support, guidance, and dedicated resources.

They can support you with the following:

- one-to-one career guidance
- employer connections to grow your professional network and provide invaluable industry insights
- skills development, including access to workshops, information sessions, networking and sector- specific training
- support with recruitment processes, including CV and cover letters, application questions, and preparing for assessment centres and interviews

You'll also have the chance to attend a number of events run by the Business School including:

- regular industry insight employer panel events
- career hub takeovers, facilitating informal conversations with employers from diverse industries
- career workshops, delivered by our career consultants covering key themes, including making applications, effective networking and job search strategy
- Career Success Conference, an annual event targeting careers, including accountancy, finance, consulting, digital, creative, HR and marketing
- careers in Asia series, a programme of employer engagement opportunities, including in-person recruitment fairs in China

Find out more about employability support in the Business School

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 have access to the Mathematics, Statistics and Physics Employability resource which brings you the latest opportunities, adverts and news. We also hold guest lectures from alumni and industry so you can see how your learning will be applied in real-business challenges.

Careers service

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

From 1 January 2021 there is an update to the way professional qualifications are recognised by countries outside of the UK

Check the government's website for more information.

Find out more...

- Go online for information about our full range of degrees: **www.ncl.ac.uk/undergraduate**
- To watch videos about student life in Newcastle, visit **www.ncl.ac.uk/lovenewcastle**
- Visit **www.ncl.ac.uk/tour** to take virtual tours of the campus and city
- 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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