

## Mathematics and Accounting

BSc Honours | NG41 | 3 years | 

This degree allows you to combine accounting and financial management with core mathematical techniques. Many of the accountancy modules carry exemptions from accrediting bodies and are based on real case studies, preparing you for a professional career. You benefit from expert teaching and receive outstanding support to help you settle into your studies.

**Stage 1:** We introduce you to accounting and finance through modules in financial accounting, management accounting and business economics. You also study core topics in mathematics and statistics including: probability; algebra; differential equations and calculus. You develop your communication and study skills by working in small group tutorials.

**Stage 2:** In accounting, you develop skills in financial control and financial accounting. You then choose between options in interpreting company accounts or corporate finance. Your core mathematical topics include vector calculus and statistical inference, as well as an introduction to computing and problem solving and to number systems with an introduction to cryptography.

**Work placement (optional):** You may choose to spend the year between Stages 2 and 3 on a work placement in the UK or abroad. This will extend your degree to four years. See page 154.

**Stage 3:** You take compulsory modules in financial and management accounting, and can choose between optional modules exploring real-life case studies to develop your business knowledge and extend your understanding of international financial management. In mathematics, you can choose from a variety of topics that are closely linked to our research expertise. These include stochastic financial modelling, Bayesian inference and statistical modelling. You may also choose linear models as an optional module to focus on your career development.

## Mathematics and Economics

BSc Honours | GL11 | 3 years | 

Employers will value the combination of economic theory and mathematical skills you gain on this degree. As well as pure and applied mathematics, you learn probability and statistical techniques that help you understand economics theories and address economic problems. You benefit from expert teaching and receive outstanding support to help you settle in.

**Stage 1:** We introduce you to the main economics issues that confront the British and European economies and help you to develop the skills needed for economic analysis. Alongside these modules, you study core topics in mathematics and statistics, including: mathematical methods; analytic geometry and the foundations of differential equations; and modelling with differential equations. We also introduce you to probability and statistics. You develop your communication and study skills by working in small group tutorials to complete a guided research investigation in business.

**Stage 2:** You explore the theory behind demand and supply curves, and short-, medium- and long-run economic frameworks, through modules in micro- and macroeconomics. You may also choose linear modules as an optional module to focus on your career development.

**Work placement (optional):** You may choose to spend the year between Stages 2 and 3 on a work placement in the UK or abroad. This extends your degree by a year. See page 154.

**Stage 3:** A wide range of optional economics modules enables you to explore a broad variety of topics closely linked to ongoing research. These currently include advanced micro- and macroeconomics, monetary economics and financial economics. You may also choose linear models as an optional module to focus on your career development.

## Mathematics with Finance

BSc Honours | G1N3 | 3 years |  

All students receive the same introduction to core mathematics and statistics topics for the first year, along with core applied mathematics, statistics and mathematical computing in the second year. See What You Will Study, page 155.

These degrees balance a broad foundation in mathematics and statistics with management and accounting topics from Newcastle University Business School. This equips you with the knowledge and skills to apply mathematics and statistics in the business world, and is excellent preparation for a career in banking and finance.

You spend two thirds of your time at each Stage studying topics in mathematics and statistics. Outside your core modules, we place particular emphasis on mathematics topics with financial applications such as stochastic financial modelling. You complement this with accountancy and corporate finance topics such as: interpreting company accounts; corporate finance; and international finance management, providing a broad understanding of the finance of the business world.

All students have the opportunity to apply for a year-long work placement between Stages 2 and 3. This extends your degree by a year.

One third of your modules at Stage 3 is optional, giving you the chance to follow areas of particular interest through topics that are closely linked to the research expertise of our staff.

*'If you have an interest in maths and statistics this course offers a lot of variety and helps you find out what you're truly passionate about. Your skills will quickly develop and you'll begin to realise how everything fits together.'*

**Danni, Mathematics and Statistics BSc Honours**

## Mathematics with Management

BSc Honours | G1N2 | 3 years |  

All students receive the same introduction to core mathematics and statistics topics for the first year, along with core applied mathematics, statistics and mathematical computing in the second year. See What You Will Study, page 155.

This degree equips you with the knowledge and skills to apply mathematics and statistics in the business world. It integrates the study of mathematics and statistics with the study of the major processes of business management, delivered by Newcastle University Business School.

You spend two thirds of your time studying mathematics and statistics at each Stage. You complement this with management and accounting topics such as: general management theory and practice; interpreting company accounts; human resource management; plus key business topics from the accounting perspective, such as marketing, finance, competition, merger/demerger, and ethics and corporate governance.

Two thirds of your modules at Stage 3 are optional, giving you a lot of freedom to follow areas of particular interest, through topics that are closely linked to the research expertise of our staff.

All students have the opportunity to apply for a year-long work placement between Stages 2 and 3. This extends your degree by a year.

## Mathematical Sciences with Foundation Year

BSc Honours | G101 | 4 years

If you don't have the right mathematics qualifications for direct entry to a mathematics and statistics degree at Newcastle, you might be eligible to take our Foundation Year.

This full-time programme covers core mathematics and statistics topics including differential calculus and complex numbers, as well as problem-solving skills and a project. Successful completion of the Foundation Year leads to progression to Stage 1 of any of our Mathematics and Statistics BSc degrees.