



University of
Nottingham

UK | CHINA | MALAYSIA

School of Mathematical Sciences Postgraduate Taught Courses

nottingham.ac.uk/pgstudy/mathematics



Enhance your
employment
prospects



Research-engaged
teaching

Develop your
research skills



Interdisciplinary
learning



Find your future at Nottingham

Overview

We offer a stimulating and dynamic environment in which to study. According to The Times and Sunday Times Good University Guide 2018, the school is ranked 7th nationally for mathematics. Join us and be taught by academic staff who are undertaking internationally leading research, ensuring our programmes are at the cutting-edge of the latest learning.

Teaching and research excellence

We were awarded a place in the top 10 nationally within Mathematical Sciences for 'research power' and 'research quality' in the latest Research Excellence Framework (REF 2014). We also deliver high quality teaching and learning for our students as recognised in the Teaching Excellence and Student Outcomes Framework 2017 (TEF).

Financial and Computational Mathematics MSc

Focused on the mathematical and computational tools used in the financial industry, this course will provide the background required for financial careers. It is designed to equip its graduates with a combination of knowledge and skills to enter the competitive job markets of quantitative finance and related fields. The MSc is provided by the School of Mathematical Sciences in collaboration with the School of Economics.

Compulsory modules include Financial Mathematics, Scientific Computing and C++, Advanced Financial Mathematics, Computational Applied Mathematics and a major summer dissertation. You will also choose from a list of optional modules including Statistical Machine Learning, Time Series, Econometrics, Monetary Theory and Practice, Macroeconomics, and Optimisation. The MSc has its own advisory board consisting of leading experts from the financial industry and academia, ensuring the degree meets employer expectations.

Gravity, Particles and Fields MSc

The course provides introductory material on general relativity and its mathematical language of differential geometry. This is followed by more advanced modules with applications to the study of black holes, cosmology and aspects of general relativity related to string theory. There is a year-long introduction to quantum field theory which introduces the famous Feynman diagrams of particle physics in a systematic way, and studies aspects of modern particle physics. There is also an introduction to the concepts of quantum information theory.

Mathematical Medicine and Biology MSc

Ideal for those wishing to gain skills suitable for a research career, this course will explore the exciting and growing field of mathematical medicine and biology. You will be trained in advanced mathematical techniques including partial differential equations and stochastic processes. In addition, a broad variety of biological and medical applications, ranging from subcellular processes such as gene regulation to organ-level dynamics will be covered.

Compulsory modules include Applied Nonlinear Dynamics, Computational and Systems Biology, Mathematical Medicine and Biology, Mathematical Medicine and Biology Dissertation, and Practical Biomedical Modelling.

Pure Mathematics MSc

Study a modern research-oriented taught course which will cover a range of topics in algebra, analysis and number theory. You will gain a broader and deeper understanding of several core areas of pure mathematics that are of strong current interest. On completion, it offers a solid foundation for a career in research in pure mathematics.

Scientific Computation MSc

The focus of this course is on the design, analysis and application of numerical algorithms, which are capable of harnessing the power of high performance computers to simulate complex, real-life events.

Compulsory modules include Computational Applied Mathematics, Scientific Computing and C++, and Introduction to Finite Element Methods. You will also select optional modules from within three available streams of modules: Computational Science, Mathematical Medicine and Biology, and Industrial Mathematics.

Statistics MSc

This programme offers a modern advanced curriculum in statistics, providing the specific techniques and skills suitable for a professional career in statistics or as a solid basis for research in the area.

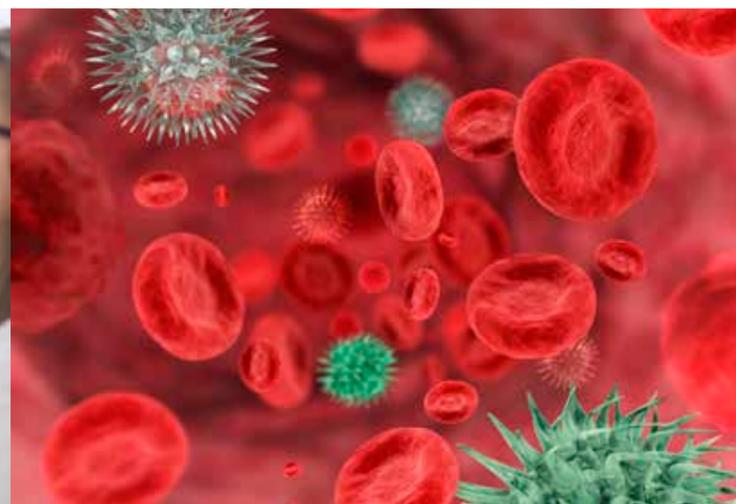
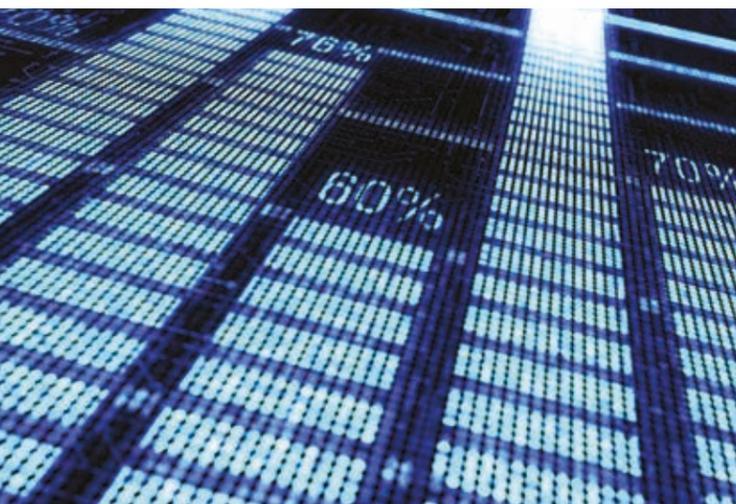
Compulsory modules are the Fundamentals of Statistics, plus a Statistics Dissertation. You will also select optional modules, and the topics typically include generalised linear models, Markov Chain Monte Carlo, the bootstrap, multivariate analysis, time series and forecasting, statistical machine learning, and stochastic financial modelling.

Statistics and Applied Probability MSc

Gain the opportunity to further your knowledge in the areas of statistics and applied probability, which will be beneficial for a professional career in statistics or as a basis for research in statistics or applied probability. Topics cover advanced stochastic processes, queueing processes, epidemic models and reliability.

Compulsory modules include Fundamentals of Statistics, Stochastic Models, and a Statistics Dissertation. You can choose from optional modules including: Advanced Stochastic Processes, Applied Multivariate Statistics, Computational Statistics or Statistical Machine Learning, Stochastic Financial Modelling, and Time Series and Forecasting.

The course is accredited by the Royal Statistical Society.





Advance your career

Our graduates have gone on to work in industry, business and commerce, statistics agencies (environment, forensic government, medical), research, pharmaceuticals, and biometrics.

A number of students also progress to PhD study.

In 2016, 89.7% of postgraduates from the school who were available for employment had secured work or further study within six months of graduation. The average starting salary was £25,933, with the highest being £35,000.*

* Known destinations of full-time home postgraduates 2015/16. Salaries are calculated based on the median of those in full-time paid employment within the UK.

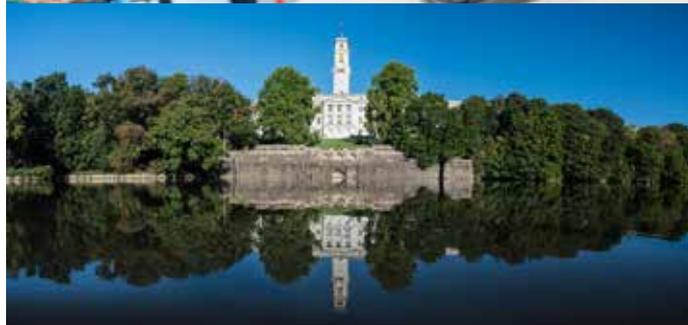
Find out more: nottingham.ac.uk/careers

Our research

Research in the school is organised into seven main research groups, together with the theme of Uncertainty Quantification which spans several groups.

- Algebra and Analysis
- Industrial and Applied Mathematics
- Mathematical Medicine and Biology
- Mathematical Physics
- Number Theory and Geometry
- Scientific Computation
- Statistics and Probability
- Uncertainty Quantification

The courses available reflect the extensive research experience of staff in all of these areas. Find out more: nottingham.ac.uk/mathematics/research



This flyer has been drafted in advance of the academic year to which it applies. Every effort has been made to ensure that the information contained in this flyer is accurate at the time of publishing, but changes (for example to course content) are likely to occur given the interval between publication and commencement of the course. It is therefore very important to check our website for any updates before you apply for the course by following nottingham.ac.uk/pgstudy. Where there is a difference between the contents of this flyer and our website, the contents of the website take precedence.

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Fund it

When looking at how to fund your postgraduate studies, it's worth taking the time to research your options, as funding is available from a variety of sources.

Find out more at nottingham.ac.uk/pgstudy/funding

Discover more

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- nottingham.ac.uk/contact
- nottingham.ac.uk/pgstudy/apply