



The University of
Nottingham

UNITED KINGDOM • CHINA • MALAYSIA

School of Computer Science

BSc Data Science

This course is one of the first undergraduate courses of its kind in the UK and covers topics unique to Nottingham on data capture, data mining, statistical analysis, machine learning and large-scale cloud computing in combination with teaching an understanding of the human issues surrounding the analysis of personal data. It produces graduates with the core mathematical and computer science knowledge and skills needed to present, analyse and ultimately understand large data sets in an ethical manner.

www.nottingham.ac.uk/computerscience



BSc Data Science

Course overview

BSc Data Science is one of the first undergraduate courses of its kind in the UK. With unique teaching and research strengths from the schools of Computer Science and Mathematical Sciences you can expect to gain knowledge and the skills needed to present, analyse and ultimately understand large data sets. Course content is split equally between mathematics and computer science modules, with an emphasis on statistical and computational data analysis methods, many the result of work in Artificial Intelligence. These are supported by a strong software development theme, providing the skills needed to both understand and apply key techniques. The final-year project provides an opportunity to bring these skills together to address real data analysis problems in a rich and supportive environment.

Typical modules include:

Year one

- Analytical and Computational Foundations
- Calculus and Linear Algebra
- Computer Fundamentals
- Databases and Interfaces
- Fundamentals of Artificial Intelligence
- Probability
- Programming and Algorithms
- Statistics

Year two

- Algorithms, Correctness and Efficiency
- Artificial Intelligence Methods
- Introduction to Numerical Methods
- Probability Models and Methods
- Stochastic Models and Methods

Year three

- Individual Dissertation
- Optimization

Optional modules

- Decision Support Methodologies
- Human Computer Interaction
- Languages and Representation
- Machine Learning
- Software Quality
- Statistical Inference
- Topics in Statistics

Your career

You will graduate with a number of key skills, including general knowledge and understanding of computers and computer science; mathematics and statistics; specialised knowledge of theoretical and practical aspects of artificial intelligence and data analysis; an understanding of a variety of approaches, techniques and tools needed to solve the different types of problem encountered in environments characterised by large data sets; and an understanding of the professional, legal and ethical aspects of the area.

This information was correct at the time of going to print and may be subject to change. For the most up to date information visit www.nottingham.ac.uk/ugstudy

Course code: 1260

Duration: Three years

A levels: AAA with A in maths; or A*AB (with A* in Maths); or AAB (with A in Maths) if this also includes an A level in computer science

For further details, please contact:

Admissions and Communications Officer

School of Computer Science

t: +44 (0)115 846 6550

e: enquiries@cs.nott.ac.uk

w: www.nottingham.ac.uk/computerscience