

Mathematics

Why study Mathematics?

Mathematics is a highly valuable subject that supports a wide range of other subjects, including Biology, Chemistry, and Physics, as well as Geography, Psychology, and Sociology. Studying Mathematics at A Level can complement most other subjects and is a must for Maths, Engineering and Computer Science courses.

Entry requirements

To study A Level Maths, students will need to have achieved a Grade 8 or 9 at GCSE.

Course content

The A Level course is linear and consists of two thirds pure maths and one third applied maths. The pure maths covers topics such as algebraic techniques, coordinate geometry, trigonometry, series, and elementary calculus. The applied section is split evenly between mechanics and statistics topics, covering probability, distributions, hypothesis testing, kinematics, and Newton's laws of motion.

Relevance

An A Level in Maths is highly valued for its applicability to many fields of academic study, including geography, psychology, sports science, engineering, economics, medicine, scientific research, actuarial work, statistical services, and teaching. Universities consider Maths to be a facilitating subject.

Career versatility

A Level Maths is clearly essential for studying Maths at university, but the skills developed through this course are also highly transferable to other careers. Mathematics students become better at reasoning logically and analytically and develop excellent numeracy skills and the ability to process and interpret data. By studying Maths at A Level, students will gain a strong foundation for further study in Maths and related fields, as well as developing valuable skills that are highly prized by employers.

Academic flexibility and skills developed:

The Maths A Level course promotes the development of a wide range of skills, including logical and analytical thinking, adaptability, resilience, creativity, and strategic thinking. Students will also develop their attention to detail, quantitative literacy, and ability to formulate reasoned arguments. The writing of structured solutions, proof, and justification of results will enhance these skills, making Mathematics students highly sought after by universities and employers.

Additional information

Students studying Maths are required to purchase a suitable calculator. The minimum requirement is for a Casio FX-991cw (approximately £22) but a preferred calculator is the Casio FX-CG100 graphical calculator (approximately £100).