

A-Level Mathematics

Who is this course for?

This course is for students wishing to further their mathematical knowledge and those wishing to study maths or a related subject at Higher Education, e.g. engineering, computing, business, economics and psychology.

Course content

Students will study two core modules and one applied module in order to get an A2 qualification in Mathematics. The two core modules are compulsory and in addition the applied module includes both Mechanics and Statistics.

Core Mathematics

Topics met at GCSE such as algebra, trigonometry and graphical work will be studied, as well as other important branches of mathematics such as calculus, functions, logarithms and series.

Mechanics

Students will learn how to describe mathematically the motion of objects and how they respond to forces acting on them, from cars to satellites. You will learn the technique of mathematical modelling; that is of turning a complicated physical problem into simpler one that can be analysed and solved using mathematical methods.

Statistics

This extends the work completed in the data handling part of the GCSE course. The course looks at mathematical modelling in statistics and probability. You will cover probability, discrete distributions, the normal distribution and correlation.

Further Mathematics

A separate A Level in Mathematics including two further maths modules and two applied modules. This A Level covers a broader range of topics covering complex numbers, proof by induction, matrices and polar coordinates. The applied modules can be chosen from Decision, Mechanics or Statistics.

Assessment

Assessment is completely by examination. Each module exam lasts for two hours.

Entry requirements

Enthusiastic Mathematicians with five GCSEs at grades A* - C (including a grade 7+ in GCSE Maths and a grade B in GCSE Science or a grade 6+ in GCSE English Language).

Career Value

This is an excellent qualification to study if you want to pursue a career in business and management where financial transactions are required and is accepted by employers as evidence of numerate ability. Many professional qualifications including accountancy and actuarial work require A-level Maths. The A level provides entry to university to read Mathematics, Science, Technology, Economics or Business.