

Mathematics

About the course

Do you enjoy a challenge and want an A Level that is highly regarded by universities and employers alike? To study Mathematics at advanced level you must have a determination to succeed and a passion for successfully solving problems.

The course is based on the modular Edexcel scheme. There are two modules for the AS exam - [Pure Mathematics](#) and [Statistics and Mechanics](#). In Year 13 there are a further three modules for the A2 exam - [Pure Mathematics 1](#), [Pure Mathematics 2](#) and [Statistics and Mechanics](#).

The focus of the Pure modules is to further develop elements of the mathematics that you will have explored at GCSE level. It will be a continuation of work on topics such as solving quadratic equations, factorising, sketching curves and trigonometry. You will also extend your mathematical knowledge further by learning how to differentiate and integrate.

AS Level

Statistics explores some of the handling data GCSE topics that you have already seen, but to a higher level. You will complete calculations that will help you better explore the spread of data and the correlation shown on scatter graphs.

Mechanics is the study of motion. It looks at the way that a physical body moves when subjected to a force. Much of the work is based around Newton's three laws of motion.

Pure Mathematics covers proof, algebra and functions, coordinate geometry, sequences and series, trigonometry, exponentials and logarithms, differentiation, integration and vectors.

At **A2 Level** the content of the course consolidates the learning in Year 12 and extends each area of study from the AS course to a higher level.

There is no coursework in A Level Mathematics.



Mathematics is a place where you can do things which you can't do in the real world

***Marcus du Sautoy
Professor of Mathematics
Oxford***

How it will be assessed

At **AS level** the course is assessed by **two** externally-examined papers: Pure Mathematics – 2 hours, weighted at 66% and Statistics and Mechanics, 33%, 1 hour.

At **A2 level** the course is assessed by **three** externally examined papers. Each paper will take two hours and is weighted as 33% of the full qualification.

What it prepares you for

Mathematics is highly regarded and considered a "facilitating subject" for the top universities in the country, regardless of the degree that you wish to study. It provides an excellent grounding for those wishing to progress onto Law, Psychology, Medicine, Business and other traditionally "humanities" subjects. Mathematics A Level is an essential requirement for many mathematics- and science-based courses at degree level.

It is also a highly regarded and valuable qualification for a wide range of professions including Engineering, Computing, Economics, Accounting and Actuarial work.

