

Mathematics

Exam board: Edexcel

Entry requirements:

Grade 6 or above in GCSE Mathematics. However, a grade 7 or above is strongly recommended.

Course content:

The course has a Core content which includes: Proof, Algebra and Functions, Coordinate Geometry in the (x,y) plane, Sequences and Series, Trigonometry, Exponentials and Logarithms, Differentiation, Integration, Numerical Methods, Vectors. A Statistics content which includes: Statistical Sampling, Data Presentation and Interpretation, Probability, Statistical Distributions, Statistical Hypothesis Testing. And a mechanics content which includes: Quantities and Units in Mechanics, Kinematics, Forces and Newton's Laws, Moments.



Assessment:

Paper 1 – 33% of the A-level. Questions will be on any Core Mathematics content.

Paper 2 – 33% of the A-level. Questions will be on any Core Mathematics content.

Paper 3 – 33% of the A-level. Questions will be on any Statistics and Mechanics content.

Why choose Mathematics:

A-level Mathematics is one of the most widely accepted and respected subject choices by universities and employers and is likely to enhance your options rather than close them down. It paves the way for any degree course and it keeps your options open should you not yet know what you want to do in a few years' time, or if you change your mind. Careers for people with good mathematical skills are vast and often well paid. A-level Mathematics will also be of great benefit if you are taking any of these A-levels: Geography, Chemistry, Physics, Biology, Economics, Business Studies, Computing or Psychology as it will support your learning in these subjects. If you study A-level Mathematics you will develop skills that make you more employable and more sought after and it will open the door to more careers.

Skills and progression:

Throughout the A-level Mathematics programme, students are encouraged to think logically and analytically and you will develop skills to think creatively and strategically, as well as gaining excellent numeracy skills and the ability to interpret data. These fundamental mathematics skills are useful across all kinds of disciplines and careers, and are highly valued by employers. A-level Mathematics can lead on to an enormous number of career choices and is actually listed as either essential, or useful, for most universities in the following courses and is therefore useful for these careers:

Actuarial science, all branches of engineering, economics, mathematics, physics, statistics, accountancy, chemistry, computer science, management studies, biochemistry, biomedical sciences, dentistry, environmental studies, geology, earth science, medicine, optometry, pharmacy, physiotherapy, psychology, sports science, teacher training, veterinary science, architecture, geography, dietetics, law, nursing, midwifery, philosophy, planning, surveying and orthoptics.