

A Level Mathematics



Exam Board: Edexcel

A Level Mathematics is always looked on most favourably by employers and university admission tutors. It is often required for entry to degree subjects such as medicine, engineering and computer science.

By studying Maths at A Level, you will gain and develop skills such as problem solving, logic and statistics. These are all transferable skills that will be useful in all aspects of future study and professional life moving forward.

Course overview:

- Topic 1 – Proof**
- Topic 2 – Algebra and functions**
- Topic 3 – Coordinate geometry in the (x, y) plane**
- Topic 4 – Sequences and series**
- Topic 5 – Trigonometry**
- Topic 6 – Exponentials and logarithms**
- Topic 7 – Differentiation**
- Topic 8 – Integration**
- Topic 9 – Numerical methods**
- Topic 10 – Vectors**

Section A: Statistics

- Topic 1 – Statistical sampling**
- Topic 2 – Data presentation and interpretation**
- Topic 3 – Probability**
- Topic 4 – Statistical distributions**
- Topic 5 – Statistical hypothesis testing**

Section B: Mechanics

- Topic 6 – Quantities and units in mechanics**
- Topic 7 – Kinematics**
- Topic 8 – Forces and Newton's laws**
- Topic 9 – Moments**

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Assessment:

Three Papers: 2 hours each

Paper 1: 33.3% of A-level 100 marks

Paper 2: 33.3% of A-level 100 marks

Paper 3: 33.3% of A-level 100 marks

Entry requirements:

Grade 7+ in GCSE Mathematics. Students who obtain a grade 6 will also be considered dependent on the recommendation of their Year 11 teacher. These students will need strong algebra skills to be accepted onto the course.

Other Course Information:

Graphics Calculators are essential for A-level Mathematics and cost between £80 - £100. Financial support is available through the sixth form bursary scheme.

Who is the course for?

- Students who wish to undertake further studies in Mathematics, usually at university.
- Students who are seeking a career in which Mathematics plays an integral part. There are a range of careers including scientific, geographic and technical all of which will benefit from an A-level in Mathematics.
- Students who have an interest and aptitude in the subject.

Career pathways:

If you wish to study for a career in medicine, the sciences, engineering, accountancy, computing, business, economics, or PE then Mathematics is either a recommended or an essential A-level. If you wish to study for a career in politics, law, languages, psychology or sociology then the complementary skills you develop in Mathematics of logical and clear thought, will enhance these subjects. Mathematics is, of course, a fascinating subject in its own right. Many students study it for the joy and the satisfaction that understanding it brings.

"The math's department is full of amazing teachers who ensure that every student understands and enjoys the work. Math's itself s interesting and solving different problems is always exciting."