

A LEVEL MATHEMATICS

Examination Board: EDEXCEL-MATHEMATICS (9MA0)

WHAT WILL I STUDY?

Studying Mathematics gives you an exciting opportunity to develop transferrable skills covered in employment and further study, such as reasoning, problem-solving and resilience, alongside developing fluency mathematical skills including analysis; proof; and numerical and algebraic manipulation. You will cover a broad range of topics across the Pure and Applied elements of the course, discussed below. Ultimately, Mathematics teaches people to think and communicate in a way which demonstrates precision, rigour and logic in tackling calculations and problems.

HOW IS THE COURSE STRUCTURED AND ASSESSED?

The A Level course consists of three modules studied across the two years: Pure, Mechanics and Statistics.

The programme of study initially extends on knowledge and skills covered at GCSE, before continuing on to new areas of learning. In Pure, these areas include linear graphs, quadratic equations, trigonometry, index notation, completing the square, transformations of functions, simultaneous equations, surds, the equation of a circle, vectors and quadratic inequalities. It is very important that students have a firm understanding of this content at GCSE to ensure success in their mathematical studies at advanced level. A baseline assessment is completed early in the course to judge suitability for the course, with an intervention programme offered to those who are passionate about post-16 study of Mathematics. Students are also introduced to new content and their applications including differentiation and integration; the discriminant; trigonometric identities; binomial distribution; sequences and series notation; and the logarithmic scale.

Mechanics and Statistics will explore areas such as kinematics, forces, advanced trigonometry and applied vectors- alongside probability, data handling and statistical analysis. Students will work on each of the modules throughout the two years, regularly completing progress assessments which are used to continually update the predicted grades.

The course concludes with three examinations sat at the end of Year 13. Two focus on assessing the Pure components of the course, and the third focuses attention on the 'Applied' components, those being Mechanics and Statistics. All three examination allow the use of a scientific calculator and are two hours in durations, totalling six hours of assessment in total.

HOW WILL I STUDY?

You will complete 5 hours of Mathematics lessons per week, delivered by expert and experienced teaching staff. Three of these hours will be devoted to the study of Pure content, and the remaining two will be sequenced between Mechanics and Statistics. You will also complete a required 5 hours of homework per week. The Mathematics Department encourages students to utilise the online resources available to them and take ownership over their own learning. Teaching staff offer further support at social time to support you in consolidating and/or extending your understanding of taught content.





POST 16

A LEVEL SUBJECTS
Mathematics

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