

Mathematics

Type of course: GCE A level (2 year linear course only)

Level: 3

Board: OCR (To be confirmed)

Syllabus Title: Mathematics

Code: H240

Entry Requirements

Candidates must have achieved a grade 7 in higher tier GCSE Mathematics. Candidates with a high grade 6 may be considered, in consultation with their year 11 Mathematics teacher.

Outline/Course Objectives

The aim of the course is to develop mathematical thinking and problem solving, building on the techniques learnt in the Higher GCSE. Students study a mixture of Pure Mathematics, Statistics, and Mechanics.

Course Content

In Pure Mathematics you will study: Proof, Algebra and Functions, Coordinate Geometry in the x-y Plane, Sequences and Series, Trigonometry, Exponentials and Logarithms, Differentiation, Integration, Vectors, and Numerical Methods.

In Statistics you will study: Statistical Sampling, Data Presentation and Interpretation, Probability, Statistical Distributions, and Statistical Hypothesis Testing.

In Mechanics you will study: Quantities and Units, Kinematics, Forces and Newton's Laws, and Moments.

Assessment

For the A level qualification you will sit 3 exams at the end of the second year (2 hours each). The switch from a modular course to a linear one has meant that there are no longer any exams at the end of the first year with the exception of internal assessments. There is no coursework for this qualification.

Future Opportunities

Mathematics is a "facilitating subject", approved by Russell Group universities. It is a preferred course for studying Science, Computing, Engineering and Technology, and also an important part of Business, Economics, Geography and Psychology.