Mathematics

Advanced Level

Overview

A Level Mathematics is a rigorous and challenging area of study. You will build on the topics of algebra and geometry met at GCSE as well as being introduced to calculus, exponentials and logarithms.

Awarding Organisation: AQA

Minimum course requirements: GCSE Grade 7+ in Mathematics (strong 6 will be considered).

More information:
Mr W Dineley

Curriculum and assessment

TOPICS

- Proof
- Algebra and Functions
- Coordinate Geometry
- Sequences and Series
- Trigonometry
- Exponentials and Logarithms
- Differentiation
- Integration
- Numerical Methods
- Vectors

- Quantities and Units in Mechanics
- Kinematics
- Forces and Newton's Law
- Moments
- Statistical Sampling
- Data Presentation and Interpretation
- Probability
- Statistical Distributions
- Statistical Hypothesis Testing

ASSESSMENT

Three 2 hour papers to be taken at the end of Year 13.

Post 18 opportunities

Mathematics is one of the biggest facilitating subjects and it is essential for many higher education courses and careers, including Mathematics, Engineering, Accountancy, Computing, Medicine and the Sciences.

Destinations of students in recent years:

University of Oxford – Mathematics

Nottingham University – Mathematics

Swansea University – Mechanical Engineering

Expenses

Students will be expected to purchase their own textbooks and may be required to purchase and complete a transition workbook in the first term of Year 12 to aid the step up to A Level study. An appropriate scientific or graphical calculator is essential and there is also the possibility of a trip. Further details will follow on the Induction Days.