The Brunts Academy Sixth Form

A level

Mathematics

THE BRUNTS ACADEMY
Nil Mortalibus Ardui Est

What will I learn?

Mathematics is designed for the student who has studied Mathematics to a high standard at GCSE and intends to study a degree programme which may contain a high mathematical content, either as a pure subject or within such disciplines such as physics, engineering and technology.
Students will be expected to develop their understanding of the process of mathematical modelling through the study of mathematical methods and to use these skills to:

- Abstract from a real situation
- Solve problems
- Interpret and communicate results

3 exams at the end of Year 13 (no coursework)

Paper 1 – Pure

Paper 2 – Pure and Statistics

Paper 3 – Pure and Mechanics

What could this course lead on to?

Mathematics is not regarded as easy but is well respected. At the end of the course students will have improved their analytical skills, become more independent learners and better at problem solving. These skills and the knowledge developed on the course are highly regarded by Higher Education courses and potential employers.

Career Opportunities:
Accountancy, banking, engineering, teaching, computer science, financial consultant, actuary, marketing consultant

Entry Requirements:
The aim of this course is to build on the knowledge, understanding and skills established at GCSE **It is important that students have at least a grade 7 at GCSE Mathematics and have an attitude to learning of a 4 or above throughout Year 11.** In addition to this, an aptitude for algebra and a great deal of work and time will be needed to succeed.

Key content and assessment

Title		Style of Assessment
Paper 1 – Pure	Algebra and functions; Trigonometry; Differentiation and integration; Numerical methods; Proof; Co-ordinate Geometry; Sequences and Series; Exponentials and logarithms; Vectors	All units are externally assessed by a written examination of 2 hours duration carrying a total of 100 marks each. The weighting of each unit is 33.3 % contributing to A2 GCE certification. All papers allow the use of a graphical calculator.
Paper 2 – Pure and Statistics	Any content from Paper 1 and content from: Statistical Sampling; Data presentation and interpretation; Probability; Statistical distributions; Statistical hypothesis testing.	
Paper 3 – Pure and Mechanics	Any content from Paper 1 and content from: Quantities and units in Mechanics; Kinematics; Forces and Newton's Laws; Moments	

Course Details

Awarding Body: OCR
WebsiteSpecific Number: H240
Staff Contact: Mr Hough