(Edexcel) - A Level

MATHEMATICS - FURTHER

This course will build upon the skills, knowledge and understanding learnt in A Level Mathematics in addition to all of the subject content covered at GCSE. Key themes of problem solving, proof and mathematical reasoning run through this rigorous and rewarding course. This course is designed to stretch and challenge students who have an enthusiasm for Mathematics.

FUTURE OPPORTUNITIES

This course is highly recommended and for some universities essential, for students wishing to study Mathematics at university with around a third of Mathematics BSc degrees mentioning this qualification in their entry requirements. It is highly respected by Universities due to its academic rigour. The course will be useful for any careers in Mathematics, engineering, computer science and medicine to name a few.

ENTRY REQUIREMENTS

GCSE:

A grade 7 in GCSE Mathematics and must be studied alongside A Level Mathematics.

CONTACT:

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COURSE CONTENT & ASSESSMENT

The Further Mathematics course is designed to provide you with a deeper understanding of the spectrum of Mathematics. You will have the opportunity to study maths unique to this course as well as extending your understanding studying A Level Mathematics. Half of the subject content is compulsory and relates to the Core Pure modules and the remaining half is made up from a range of options as stated below. Throughout the qualification you will study the following modules of maths:

- Core Pure: A deeper look into the understanding of algebra, calculus and vectors with the additional study of matrices and complex numbers. This part of the course has direct links as to how maths is used within the world of engineering.
- Decision: The study of algorithms, linear programming, game theory and critical path analysis. This element of the course has direct links to computer science and looks at the theory behind many digital processes that are used in everyday life. This is a unique area of Mathematics studied only within this qualification. There are two modules, Decision 1 and 2, that can be studied. Decision 1 will be studied in Year 12 alongside Core Pure with the option of studying Decision 2 in Year 13.
- Further Mechanics: Further builds upon the study of mechanics at A Level Mathematics.
- Further Statistics: Further builds upon the study of statistics at A Level Mathematics.

EXAMINATIONS Year 13

- **Paper 1: Core Pure 1 (90 minutes, 75 marks)**
- **Paper 2: Core Pure 2 (90 minutes, 75 marks)**
- **Paper 3: Decision 1 (90 minutes, 75 marks)**
- **Paper 4: Decision 2 or Further Mechanics or Further Statistics (90 minutes, 75 marks) – to be confirmed at the end of year 12 dependent upon the requirements of the group**