

# FURTHER MATHS

A-level Further Mathematics is designed to broaden and deepen the mathematical knowledge and skills developed when studying A-level Mathematics. It is studied alongside A-level Mathematics and provides a stimulating experience for those who enjoy the subject.

A-level Further Mathematics is made up of three broad areas. These are Core Pure Mathematics, Further Statistics and Decision Mathematics.

**Note:** To study Further Mathematics you must also take A-level Mathematics. Students will be required to take on further independent study to deepen their knowledge.

## COURSE DETAILS:

### Core pure mathematics includes:

Proof, Complex numbers, Matrices, Further algebra and functions, Further calculus, Further vectors, Polar coordinates, Hyperbolic functions, Differential equations.

### Further Statistics includes:

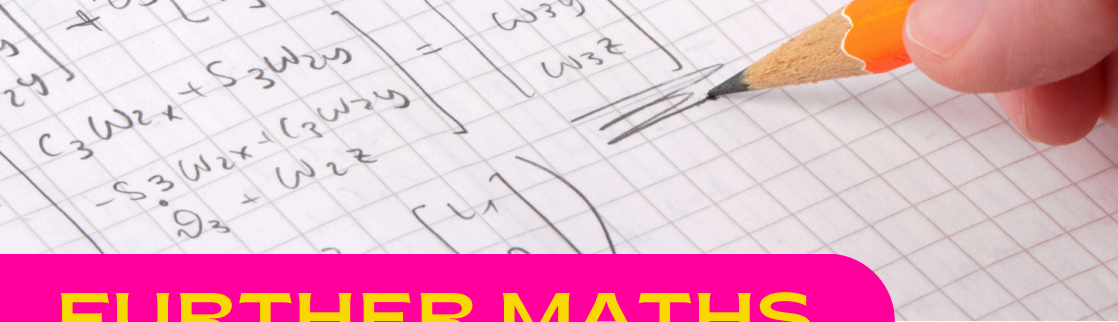
Discrete probability distributions, Poisson and Binomial distributions, geometric and negative binomial distributions, Hypothesis testing, Central Limit Theorem, Chi Squared tests, probability generating functions, quality of tests.

### Decision mathematics:

Algorithms and graph theory, Algorithms on graphs, Critical path analysis, Linear programming.

**EXAM BOARD:**  
EDEXCEL A-LEVEL FURTHER  
MATHS (9FM0)

**ASSESSMENT:**  
4 EXAMINATION PAPERS AT  
THE END OF YEAR 13 WORTH  
25% EACH COVERING:-  
CORE PURE MATHEMATICS 1  
CORE PURE MATHEMATICS 2  
FURTHER STATISTICS  
DECISION MATHEMATICS



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Other Learning Opportunities:

- Maths master classes at local universities
- Supporting KS3/4 students in Mathematics lessons
- Being a member of the Maths Society
- Become a member of the Further Maths Support Network

WHERE NEXT WITH THIS COURSE?

Studying Further Mathematics is excellent preparation for university, especially if you wish to study any mathematics related subject such as the sciences, engineering, computing, accountancy, financial mathematics or mathematics itself.

Students with a Further Mathematics qualification could go on to work in many fields including Actuarial Analysis, Accountancy, Data Analysis, Academic Research, Statistical Analysis, Finance, Insurance, Meteorology, Investment Banking, Software Development.



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## HIGHAM LANE SIXTH FORM