A LEVEL

Further Mathematics

For those students with a particular passion for Mathematics, Further Mathematics is both deeper and broader than A Level Mathematics, combining both courses to cover the work of two A Levels.

The subject acts as the perfect bridge between A Levels and university education, developing the skills required to work at degree level in any subject. Students studying Further Mathematics will encounter fascinating concepts such as matrices and complex numbers, study advanced mechanics and statistics, solve intricate problems and explore new mathematical ideas. Holding an A Level in Further Mathematics is one of the most highly regarded achievements of all.

COURSE CONTENT

Core Pure Mathematics:
This builds upon the A Level core as well as introduces new topics such as complex numbers, matrices, proof, further algebra, further calculus, further vectors, hyperbolic functions, polar coordinates and differential equations.

Pure content is quickly progressed upon in Year 12 along with various topics from Further Applied Maths. This gives students extra time to explore the more challenging content of later modules. and for students to extend their studies to include work on STEP (Cambridge University entrance exam) and MAT Mathematics (Oxford University entrance exam).

Further Applied Mathematics:
Options will be chosen depending upon the needs of each cohort, allowing the teaching staff to link more effectively with content and vary the pace. Options include:

- Further Pure Maths,
- Further Statistics,
- Further Mechanics
- Decision Mathematics.

SKILLS REQUIRED

GCSE Grade 9 or above is required in Maths. Students are also required to have studied one form of Additional Maths in Year 11.

Further Maths will suit students who are strong mathematicians who enjoy solving problems and puzzles and really being stretched and challenged.

Due to the rigours of the A Level Mathematics course, all students will be expected to complete an A Level preparation booklet submitted upon return after the summer break. Students will also be assessed with a 'Bridging the Gap' test within the first two weeks of term to ascertain their suitability for the course.

ASSESSMENT

All course content is examined at the end of the two-year course. The assessment consists of four externally examined papers. Calculators can be used.

Paper 1:
Core Pure Mathematics 1. 1 hour 30 minutes. 25% of final marks.
Paper 2:
Core Pure Mathematics 2. 1 hour 30 minutes. 25% of final marks.
Paper 3:
Further Mechanics 1. 1 hour 30 minutes. 25% of final marks.
Paper 4:
Further Pure 1. 1 hour 30 minutes. 25% of final marks.

ENRICHMENT

All students can receive additional support outside lessons through weekly drop-in clinic sessions. Further Mathematicians are encouraged to participate in STEP Club to develop a deeper understanding and application of Maths in preparation for Cambridge or Oxford entrance exams.

FUTURE PATHWAYS

Further Mathematics is widely considered to be an elite qualification held by few. Students who are considering studying Mathematics at university or wish to take a higher education course with significant mathematical content should definitely consider studying Further Mathematics. It will set you apart from other students who are competing for sought-after places. Further Mathematics is increasingly in demand from universities for all engineering courses, Chemistry and Physics. It is also welcomed for Veterinary Science and Medicine.

EXAM BOARD

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Hear from our Students

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