Further Mathematics

Overview:

The Advanced level in Further Mathematics course consists of three externally examined papers; two Further Pure Mathematics and one Applied Mathematics paper consisting of Further Mechanics and Discrete Mathematics. Each paper is 2hrs, equally weighted towards your final grade at A Level.

GCE A Level in Further Mathematics is a course worth studying not only as a supporting subject for the physical and social sciences, but in its own right. It is challenging and interesting. It builds on work already met at GCSE (higher tier) but also involves new ideas produced by some of the greatest minds of the last millennium.

Students will follow the AQA A level Further Mathematics course (code 7357)

Studying this course will enable students to:

- understand mathematical processes in a way that promotes confidence, fosters enjoyment, and provides a strong foundation for progress to further study;
- understand coherence and progression in mathematics and how different areas of mathematics are connected;
- apply mathematics in other fields of study and be aware of the relevance of mathematics to the world of work and to situations in society in general;
- use their mathematical knowledge to make logical and reasoned decisions in solving problems both within pure mathematics and in a variety of contexts, and communicate the mathematical rationale for these decisions clearly;
- construct mathematical proofs;
- use their mathematical skills and techniques to solve challenging problems which require them to decide on the solution strategy;
- represent situations mathematically and understand the relationship between problems in context and mathematical models that may be applied to solve them;
- interpret solutions and communicate their interpretation effectively in the context of the problem;
- read and comprehend mathematical arguments, including justifications of methods and formulae, and communicate their understanding;
- use technology such as calculators and computers effectively and recognise when such use may be inappropriate;
- take increasing responsibility for their own learning and the evaluation of their own mathematical development.

Expectations/independent learning

A willingness to work hard throughout the course important. We will expect to have seen a good attitude at GCSE. The ability to work accurately with algebra, trigonometry, geometry and proof is essential and a good understanding of probability and statistics will help, although key concepts will be revised at the start of the course. For every hour taught in lessons, students are expected to spend at least two hours independent /private study.

Entry Requirement: In additional to the entry requirements mentioned in the Sixth Form Prospectus, you will need to attain a grade 6 or higher at GCSE Mathematics to take this course.

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08149829
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