A Level Further Mathematics OCR MEI
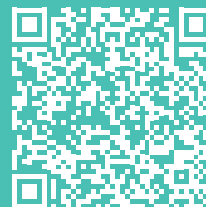
Why study Further Mathematics?

Like with A Level Mathematics, studying Further Mathematics improves your career opportunities and employability skills. Anyone thinking of studying a degree in a STEM subject should consider taking Further Mathematics to at least AS Level as the additional content helps ensure a successful progression to university. Having A Level Further Mathematics on your university application is a way to make it stand out. Studying A Level Further Mathematics is also likely to improve your grade in A Level Mathematics. The extra time, additional practice, further consolidation, and development of techniques contribute to improved results in A Level Mathematics.

About the course

A-Level Further Mathematics is fun and rewarding. It broadens your mathematical skills and promotes deeper mathematical thinking. You will be introduced to interesting new areas of pure mathematics such as complex numbers and apply mathematics in a wider range of contexts.

We offer a two-year linear A Level with the option to complete the AS qualification at the end of the first year.

Year 12

In Year 12 you will study three modules on different areas of mathematics. The first module is Core Pure, where you will learn about complex numbers, matrices, vectors, and proof. There is some flexibility over the other two modules that you will study, and we try to tailor this to the cohort of students. We study Statistics and Modelling with Algorithms in Year 12.

In the Statistics module you will broaden your knowledge of Statistics and build on the content covered in A-level Mathematics. An understanding of probability and risk is important in careers like insurance, medicine, engineering and the sciences.

Modelling with Algorithms used to be called Decision or Discrete Mathematics and still is by some other exam boards. During this module you will learn how to construct and use algorithms to find efficient solutions to real life problems, such as finding the shortest route around a network. The techniques are important in business, logistics and computer science.

Year 13

In Year 13 you will study two modules. The first module builds on the Core Pure content that you studied in AS Further Maths. You will also be introduced to new concepts such as hyperbolic trigonometry and Polar co-ordinates, as well as extending ideas from A Level Mathematics further.

The second module is optional and like with year one of the course, we will try to tailor this to the cohort, usually we study a Mechanics module. This module builds on and extends the Mechanics concepts covered in A Level Mathematics. Mechanics is particularly useful to students studying physics

and engineering.

Assessment

The AS Level is assessed by three examinations of equal weighting at the end of the year.

The A Level is assessed by four examinations at the end of Year 13.

Entry criteria

At least a grade 7 in GCSE Mathematics.
You must also be studying A-Level Mathematics or already have an A Level in Mathematics.

Outside the classroom

We offer students the opportunity to take part in the UKMT individual challenges and Senior Team Challenge.