

Sixth Form Courses

A-Level Further Mathematics

Why take this subject?

Further Mathematics gives the most able mathematicians the opportunity to both study some new topics that are neither in GCSE nor in normal A-level Mathematics (including for example complex numbers, matrices, limits) and to study some A level topics in more depth. It is invaluable for anyone wishing to study a mathematics based subject at University.

We offer both AS and A-level Further Mathematics. Students who opt for the former will finish the course at the end of Year 12. Students who wish to continue will carry on and take the full A-level exam at the end of Year 13. This is considerably more difficult, but also more interesting, complete, rewarding, and sought-after especially for STEM university courses and employers.

Besides, whereas normal Maths is interesting, Further Maths is very cool. Very cool indeed.

What do I need to have studied at GCSE?

This course is aimed at the most able mathematicians. You will need at least a grade 8 at GCSE mathematics. Further Mathematics GCSE would be an advantage but it is not essential.

What will we study?

The A-level course is divided into three areas:

- Core Pure Maths (50%)
- Further Pure 1 (25%)
- Further Mechanics *or* Further Statistics (TBC) (25%)

The AS course is divided into the same areas in the same proportions. Of course, the material is less.

How will I be examined?

The final exam, at the end of Year 13, consists of four 90-minute papers: Core Pure 1, Core Pure 2, Further Pure 1 and Further Mechanics/Statistics. The AS exam, in May/June of Year 12, has only two 100-minute papers: Core Pure (50%) and Options (50%).

You will sit internal examinations in November, February and April of Year 12; and November, February and April in Year 13.

What super curricular opportunities will be available to me?

Starting this year we are planning trips to lectures. We are also planning to invite external speakers. Seminars on undergraduate-level topics may also be available.

What can this subject lead to?

A significant (and growing) number of universities now **require at least AS FM** as an entry requirement for their mathematics courses. Some require it for other courses including **Physics, Computer Science and Engineering**.

Many other universities have **lower standard offers** for students that have studied Further Mathematics.

Most universities that don't require Further Maths have publicly stated that **students who have studied Further Maths are more likely to succeed at university**.