

AS/A level Further Mathematics

Key information



Advanced Mathematics
Support Programme®

What is Further Mathematics?

Further Mathematics is an AS/A level qualification designed to deepen and broaden the maths studied in AS/A level Mathematics. It may be studied alongside or after taking AS/A level Mathematics.

Although some of the content is prescribed by the government, the rest varies between specifications. This flexibility allows schools and colleges to offer a course that supports their students' future study and career aspirations, whilst making the best use of the expertise available within their maths department.



What is studied in AS/A level Further Mathematics?

50% of its content is a prescribed pure maths core. For the remaining 50% of the content, different options are available. These options vary between specifications and may include mechanics, statistics, discrete/decision maths and additional pure maths.

The University of Bath makes alternative offers for degrees that require A level Mathematics (such as Civil, Chemical, Mechanical and Electrical Engineering, Computer Science, Physics, Economics and Accounting & Finance), based on achieving a grade B in AS or A level Further Mathematics where this is studied in addition to three other subjects.

Who is Further Mathematics for?

Students who achieve a grade 6 or higher in GCSE Mathematics should consider taking AS or A level Further Mathematics (in addition to A level Mathematics).

A level Further Mathematics is particularly beneficial for students who are considering taking a mathematically demanding degree or apprenticeship programme.

Studying Further Mathematics can also help prepare students for mathematical admission tests, which are required by some leading universities.

Why should students have the opportunity to take Further Mathematics?

Taking AS/A level Further Mathematics can help students realise their aspirations by enabling them to achieve places on prestigious degree courses.

What's more, by offering the full range of advanced maths qualifications, your school or college can enrich its maths culture and give your students the opportunity to choose the post-GCSE maths pathway that's best for them.

Evidence shows that a wider advanced maths offering increases post-16 retention, improves results and broadens your students' opportunities for the future.

Many leading universities ask for A level Further Mathematics in their entry requirements for maths degrees. Some give preference to applicants who have taken AS/A level Further Mathematics, which may extend to applications for degrees other than maths.



AS/A level Further Mathematics specifications

The specifications usually followed by schools and colleges in England are:

- AQA
- Edexcel
- OCR A
- OCR B (MEI)

How can Further Mathematics be delivered?

There are many ways of offering AS/A level Further Mathematics.

Most schools and colleges timetable Further Mathematics lessons as a standard block, separate from AS/A level Mathematics teaching. However, if you don't have the provision to offer a fully-timetabled class, there are other options available:

- Use an 'enrichment' slot to offer support to small groups of students.
- Combine student groups from two or more schools/colleges to make a viable class.
- Share teaching between your maths department and a local Advanced Mathematics Support Programme tutor.

What about AS Further Mathematics?

If you can't offer the full A level in-house, it is well worth considering offering AS Further Mathematics. It introduces students to topics that are useful for degree courses, and improves mathematical fluency. It's also been found that students who study AS Further Mathematics have improved results in AS/A level Mathematics.

Is funding available to help with offering Further Mathematics?

If your school or college is increasing student participation in advanced maths, you may qualify for additional funding through the Advanced Maths Premium.

The premium is £600 per year per 'additional' student; this is paid for one year for AS level courses and two years for A level courses. In addition, if you have students studying A level Further Mathematics as part of a four (or more) A level programme, your school/college qualifies for an additional 10% (or 20%) funding uplift provided they



achieve grade C or above in Further Mathematics and grade B or above in their other subjects.

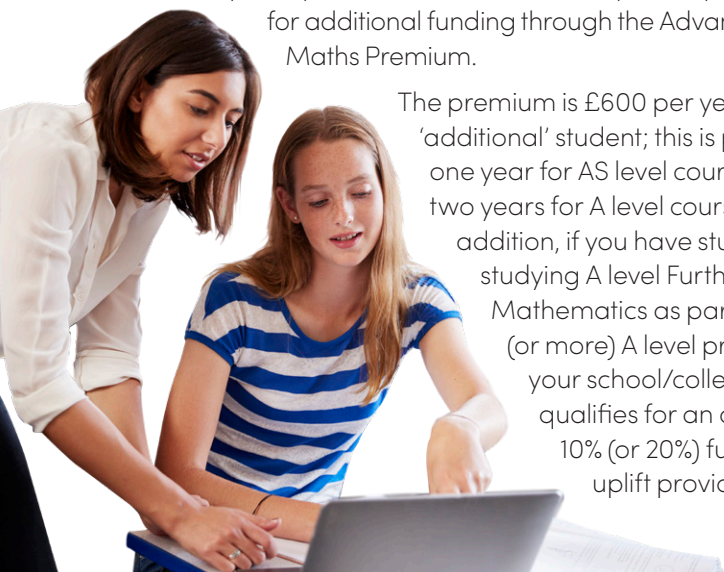
Visit amsp.org.uk/leadership/funding for information about funding for AS/A level Further Mathematics.

What support is available to help establish Further Mathematics?

The **Advanced Mathematics Support Programme (AMSP)** is a government-funded initiative that aims to increase participation in level 3 maths qualifications. We offer support and guidance on setting up Further Mathematics provision, and run professional development for teachers to develop pedagogy and subject knowledge.

If your school or college is having difficulty staffing or timetabling Further Mathematics, the AMSP may be able to provide tuition for your students. Our tuition support is either provided face-to-face or through our Live Online Tuition programme. The AMSP employs Area Coordinators to work with local schools and colleges. They can advise you on the best option for your circumstances. There is also a series of Further Mathematics videos for students, designed to support your teaching.

Visit amsp.org.uk/teachers/a-level-further/strategies-for-offering-further-mathematics for information about the support available for teachers.



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