

A level Further Maths

Why study Further Maths?

- Studying Further Mathematics is challenging, fun and rewarding for anyone who has a strong interest in Mathematics.
- It is advisable to study Further Mathematics if you're thinking of studying Mathematics or a mathematics-related degree such as Engineering or Physics at university. It is encouraged by many universities, and is a requirement for some courses. It is particularly helpful preparation for a Mathematics degree.
- Studying the new topics introduced in the A level, such as complex numbers and matrices, really helps the transition to studying Mathematics at university.
- Higher level mathematics qualifications often lead to better paid, more interesting careers.
- Studying Further Mathematics is likely to improve your grade in A level Mathematics.



Why study Further Maths at Solihull Sixth Form College?

- A level Further Mathematics is an additional A level that you study alongside A level Mathematics and it is usually taken as part of a four A level programme.
- The Mathematics Department is staffed by enthusiastic, well qualified and experienced teachers of Mathematics and Further Mathematics who use a variety of teaching methods and technology to support your learning.
- Being a large Sixth Form you will study with other able, keen mathematicians who support and inspire each other.
- There is support available for progression to demanding Universities requiring entrance examinations.
- There are many enrichment events available to keen mathematicians including UKMT mathematics challenges (both individual and team), and opportunities that arise at local universities.

Case Study

Among the recent successful students to have taken this course is **Zoe Mason**.

She came to the College from Alderbrook School and excelled at A Level, achieving all A and A* grades in A level Physics, Chemistry, Mathematics and Further Maths. She progressed to Lady Margaret Hall at the University of Oxford to continue her Maths studies.



"The best thing at College was my Further Maths classes because the small group meant that it was a very supportive environment.

This was created by both teachers and students. I got great opportunities to do exciting things like the Maths Olympiad for Girls and the Team Maths Challenge. I decided to apply to Oxford because I loved the place and felt at home there. If you love the subject you are applying for then it's worth a try applying to Oxbridge. Try to take each step of the process at a time to prevent becoming overwhelmed."

- student Zoe Mason



Course Outline

Year 12

You will cover essential pure mathematical methods such as the principles of proof, complex numbers and matrices.

You will also extend the mechanics and statistics work covered in your Maths A level to include momentum, circular motion, work and energy, the Poisson distribution and chi-squared contingency tables.

Year 13

The work in pure mathematics is extended to include topics such as rational and hyperbolic functions, further calculus and polar coordinates.

There will also be more material in the applied mathematical topics to study further, including simple harmonic motion, centres of mass and moments, the exponential, rectangular and t-distributions and calculation of confidence intervals.

Assessment

No Coursework

Examination (100%)

Examining Board – AQA.

Special Entry Requirements

Minimum grade 7 or A or above in GCSE Mathematics. Further Maths is usually taken as part of a 4 A level programme, which also includes A level Mathematics. Students wishing to take Further Maths as part of a 3 A level programme will be interviewed by a senior member of staff. In addition, entry requirements for studying three or four A levels (as applicable) apply - see www.solihullsf.ac.uk/courses/entry-requirements.

Prohibited Options

Statistics.

What do our students go on to do?

There is a shortage of people with strong mathematical skills. Students with Further Mathematics commonly take up top professional careers in a wide variety of areas. These include Insurance and Actuarial Work, Finance, Management, Operational Research, Civil, Mechanical and Electrical Engineering, Architecture, Government, Medical or Pharmaceutical Statisticians and Business Analysts. This is a valuable option for students considering Mathematics, Physics, Engineering or Economics degrees.

Cost Implications

You will be expected to purchase a graphical calculator (Casio Graphics Calculator FX-9750GII) for use on the course and some work will be done using computers.

Complementary Subjects or Enrichment Courses

Physics, Computing, Economics, Chemistry, Biology, Geography, Psychology or Business Studies.

There is always support available for progression to demanding Universities requiring entrance examinations.

Examination Results

In the past three years, there has been great success for students on this course, including consistently high pass rates. The full breakdown of results is as follows:

Year	Entry	A*	A	B	C	D	E	U	A-E%
2018	14	5	5	2	0	2	0	0	100.0%
2019	12	1	5	2	3	1	0	0	100.0%
2020	11	2	4	2	2	1	0	0	100.0%

Contact

Address: Solihull Sixth Form College
Widney Manor Road, Solihull
West Midlands B91 3WR

Tel: 0121 704 2581
Email: admissions@solihullsf.ac.uk
Web: www.solihullsf.ac.uk