

FURTHER MATHS

AS & A Level

This subject will suit you if:

- You really find Mathematics an interesting subject and you enjoy solving problems.
- You want to be challenged and stretched by studying more difficult topics.
- You have a logical mind and want to develop your reasoning abilities.
- You are planning to study either Mathematics or a related degree at one of the top universities.



Subject Combinations

Further Mathematics combines well with Physics, Chemistry, Computing, Electronics, Economics, Business Studies, Geography, Psychology, Biology, Law and Critical Thinking.

Additional Entry Requirements

Grade A or A* in GCSE Mathematics is essential.



What You'll Study

- You'll extend your knowledge of topics which you have met at GCSE, such as Algebra, Graphs, Trigonometry and Vectors.
- You'll meet many new Pure Mathematics topics such as Calculus, Polar Coordinates, Matrices, Hyperbolic Functions and Complex Numbers.
- A range of Applied Mathematics subjects are available including Mechanics, Statistics and Decision Mathematics.
- You'll study Mathematics for two of your timetable blocks and in the first year will complete an A level in Mathematics. This consists of four Core Mathematics units and two Applied Mathematics units.
- In the second year students take two or three Further Pure Mathematics units and three or four Applied Mathematics units. It is possible to gain an AS Further Mathematics qualification by taking only three of these six units. Each unit is assessed by an external examination of 1½ hours.



Natasha Faulkner

"I've always enjoyed Maths. There's something about working hard on one problem for a long time that is so satisfying when you get the answer. The pace of the classes in Further Maths is faster than at school because everybody is good at it. I enjoy the classes because the teachers are really good and have a sense of humour that gives the lesson a good atmosphere. Studying Further Maths has given me an advantage in my other subjects because I am able to solve problems more easily through the skills that Maths teaches, such as logic and algebra manipulation. I also study Physics, Chemistry and Electronics where a strong grasp of Maths is very useful."



Enrichment

First year Mathematics students have had the opportunity to see presentations by visiting speakers about the Mathematics involved in such diverse areas as mountaineering, aircraft design and the computer games and film industries. Professor Marcus Du Sautoy of Oxford University gave an entertaining lecture: "The Num8er My5teries" and small groups of students have attended "Maths Inspiration" events in Leeds. Our students regularly attend open days and revision days at the Mathematics department of Manchester University. College tutors also help to prepare students for STEP examinations (sometimes required by Universities), for Maths interviews at University and for the Advanced Extension Award.

Each year the college takes part in the UK Senior Maths Challenge which is a multiple choice paper of puzzles designed to stimulate mental agility and mathematical reasoning. Gold, Silver and Bronze certificates are awarded to many participants.



Callum Slattery

"I chose this subject because I find the nature of Maths and the process of using logic and laws to solve problems immensely satisfying.

The class dynamics are great, combining a small-ish size with a decent pace and like-minded people and the helpful, friendly staff are always there to offer guidance on particularly difficult problems. Further Maths doesn't necessarily have to complement other subjects - for instance my other subjects are English, History and French - but it shows a great deal of skill and commitment to prospective universities and employers. The careers pathways from a Maths degree are diverse. I'm hopeful that Pure Maths at university could feed into a career in research."



Ideas for Progression

An A level in Further Mathematics can be advantageous to many students. If you are considering a degree course in Mathematics it is preferred by many universities. It is also suitable for those who want to go on to Higher Education to study related subjects such as Engineering, Physics, Computing, Accounting or Actuarial Science. It is always highly regarded by employers, particularly for careers requiring high levels of mathematical skill or logical thought.



To find out more you can visit our website: www.osfc.ac.uk