

A Level Further Maths



Course Level: Level 3

Campus: Newcastle

Subject Type: Science & Maths

Course Overview:

Take your mathematical abilities to new heights with our A Level Further Mathematics course. Designed for students with a passion for mathematics and a strong aptitude for problem-solving, The aim of the course is to give you a very broad and in-depth mathematical experience. Through rigorous study and challenging problem sets, students develop a deep understanding of mathematical theory and its practical applications.

For example, in the standard A Level you may only study limited Statistical and Mechanical topics, but in Further Maths not only are these topics extended, you may also look at other areas of Maths such as Numerical Methods and Algorithms.

Year 1:

All A Level Maths content will be studied. Topics covered will include Pure: Trigonometry, Calculus, Methods of Proofs, Numerical Methods. You will be able to create, analyse and interpret a variety of functions algebraically and graphically. In Applied Maths you will apply equations of motion and Newton's three Laws of Motion to solve problems in one and two dimensions. In Statistics you will apply various formulae to interpret and analyse data generally, and data distributed uniformly, binomially or normally. You will solve problems and real-world situations by hypothesis testing across different distributions and also involving correlation / bivariate data.

Year 2:

You will build on A Level skills and knowledge to develop further and deeper knowledge and problem solving skills. In Pure, you will discuss different co-ordinate systems, more forms of trigonometry, and dive further into applying important formulae and theorems developed by many of the great mathematicians of history.

You will have two core modules, Pure, and you will be given a choice of two optional module components, from a choice of Further Pure, Mechanics, Statistics or Decision Maths. Each of these modules can play important roles in degree courses including Sciences, Engineering courses, Economics, Psychology, Computer Science and Business/Accounting courses. Your lecturers will be able to guide you to the most appropriate module(s) best matching your future course aspirations

Entry Requirements:

You will need a minimum of five GCSEs at grade 5 or above including maths and English Language, in subjects relevant to your A Level or A+ Programme subject choices. You should also have GCSE grade 7 or above in Maths. A Level Further Maths must be studied alongside A Level Maths.

Assessment Information:

The examining body that we use is Edexcel. It is intended that there will be three exam papers at the end of the second year. There is no coursework element.

100%
pass rate

64%
achieved A*-B in
2024

The aim of the course is to provide a broad experience of maths which is likely to underpin aspects of most (if not all) degree level Science and Engineering courses. Many of the topics covered in Further Maths A Level will be studied in-depth, possibly as far as second year degree level in Maths. This provides a head-start to those students wanting to follow a Maths degree but also to be on an equal footing with the majority of students who study Physics, for example, or Maths, or many other science-based subjects at Oxbridge.

Fees and Financial Support:

This course is free for anyone aged 16 – 18.

College Maintenance Allowance (CMA):

Anyone with a gross household income under £35,000 can receive financial support to cover college related costs such as transport, meals, course equipment and uniform. Bursary support is based on individual circumstances and will be allocated to best suit your individual needs. A range of other financial support is available depending on your personal circumstances. For more details visit nscg.ac.uk/finance

Progression:

Further Mathematics is a highly regarded A Level and many doors of opportunity are open to you if you gain a qualification in this subject. Many of our students go on to university to read subjects such as Engineering, Mathematics, Law, Economics or Computer Science but there are also students who use the qualification to give them an edge in gaining employment and/or apprenticeships.

What else do I need to know?

NSCG is a great environment for learning Mathematics. We have a highly dedicated team with vast experience of teaching A Level students. You will have opportunities to expand your study to different areas of Mathematics as you see your interests develop. We are able to offer a wide range of modules. It is worthwhile studying Further Maths for a variety of maths-based university courses, and it is essential for studying Maths and/or Engineering at some universities.

Think of what you're capable of. Then think beyond it.

Step up to a top university or move into a competitive programme like Medicine or Law with our Honours Programme. Perfect for ambitious and high-achieving students.

The Honours Programme is an additional pathway for students whose aspirations are to progress onto highly competitive courses at top universities, such as those in the Russell Group. Once accepted onto the programme, you'll be expected to commit extra time every week to this intensive support pathway.

Find out more [here](#)

How do I find out more?

If you wish to find out more you can contact Phil Greenwood, by emailing:
<mailto:philip.greenwood@nscg.ac.uk>