

A Level Further Mathematics

Further Maths at Dixons Sixth Form Academy

Further Mathematics is a prestigious A Level taken nationally by some of the most mathematically able sixth form students. At Dixons Sixth Form Academy, students who take this course will do so in addition to their three core A Levels. All students taking Further Mathematics will sit the AS examination at the end of year one.

What the course covers

All candidates will sit the compulsory Core Mathematics module. In Year 1 students will also study the Statistics A module and the Modelling with Algorithms module. In Year 2 they will study the Mechanics A module. This allows students of Further Mathematics to broaden their mathematical knowledge.

The Core content consists of proof, complex numbers, matrices, vectors, algebra, series, calculus, polar co-ordinates, hyperbolic functions and differential equations.

The Mechanics A module consists of dimensional analysis, forces and motion, momentum and impulse, centre of mass, moments of forces, kinematics and work, energy and power.

The Statistics A module consists of discrete random variables, bivariate data, chi-squared tests and discrete probability distributions.

The Modelling with Algorithms module consists of algorithms, modelling with graphs and networks, network algorithms, linear programming and the simplex method.

The scheme of work has been designed so that all students sit the AS examination at the end of Year 1. Students will sit a Core exam alongside Statistics A and Modelling with Algorithms.

The complete specification can be viewed on the AQA website. www.aqa.org.uk

What students can do with this course

An A Level in Further Mathematics is useful for a wide range of careers and university as it is a facilitating subject. To study a degree in Mathematics, Engineering or Physical Sciences you do not need to have Further Mathematics, but it is a distinct advantage when applying. Indeed, some offers may be reduced for students who have studied the subject.

The Russell Group report 'Informed Choices' states that Further Mathematics is useful for actuarial science / studies; aeronautical engineering; biochemistry; biomedical sciences (including medical science); chemical engineering; chemistry; computing; electrical / electronic engineering; engineering (general); mathematics; mechanical engineering and physics. Some universities have said that the offer they make for these type of degrees is lower for students studying Further Mathematics than for those who just study Mathematics A Level.

How this course is assessed

The Core exam at the end of the course is 2 hours and 40 minutes in length, the major option exams are 2 hours and 15 minutes whilst the minor option examinations are 1 hour and 15 minutes.

There are three AS examinations all of length 1hr and 15 minutes.

Entry requirements

All our course entry requirements are detailed in the Entry Requirements document located in the admissions section of our website.