

AQA AS & A Level Further Mathematics

Course Overview

Further Mathematics is an extra A Level on top of the ordinary A Level Mathematics and is aimed at those students who really enjoy and excel at mathematics.. It is very useful for anyone thinking of studying mathematics at university.

Course Content

Year 12: You will study Pure Maths and two options from Mechanics, Statistics or Discrete Mathematics:

- **Pure Maths:** complex numbers, matrices, polar coordinates, hyperbolic functions, further algebra and functions, further vectors, further calculus
- **Mechanics:** dimensional analysis, momentum and collisions, work energy and power, circular motion.
- **Statistics:** discrete random variables, Poisson distribution, Type I and II errors and power of a test, continuous random variables.
- **Discrete:** graphs, networks, flow, linear programming, critical path analysis, game theory, group theory.

Year 13: You will study Pure Maths and two options from Mechanics, Statistics or Discrete Mathematics:

- **Pure Maths:** extends all the work in Year 12 and includes differential equations, trigonometry, numerical methods and coordinate geometry
- **Mechanics:** extends all the work in Year 12.
- **Statistics:** extends all the work in Year 12 and includes the exponential distribution and inference.
- **Discrete:** extends all the work in Year 12.

Assessment

AS Level is awarded based on your performance in two equally weighted papers usually taken at the end of year 12.
Paper 1: 100% pure maths. Paper 2: two equal sections from the three options of mechanics, statistics or discrete maths.

A Level is awarded based on your performance in three equally weighted papers usually taken at the end of year 13.
Paper 1: 100% pure maths. Paper 2: 100% pure maths. Paper 3: two equal sections from the three options of mechanics, statistics or discrete maths.

Entry Requirements

A grade 7 or higher in GCSE Mathematics. To progress to Y13, you need at least a grade C in AS Further Mathematics.

Course Contact

Barry Saccone
Andy Biesterfield

saccone.b@trinitycatholiccollege.org.uk
biesterfield.a@trinitycatholiccollege.org.uk