



Wigston College

Further Mathematics A Level

Examination Board

AQA 7367

Entry Requirements:

GCSE Grade 8 in Maths

What will I be studying?

You will study Pure Maths (two thirds of the course), Mechanics (one sixth of the course) and Statistics (one sixth of the course). Some of the content develops ideas introduced in A Level Maths, whilst much of it introduces completely new ideas. You will therefore broaden and deepen your mathematical knowledge and skills.

Pure Maths – Complex numbers, Matrices, Further algebra and functions, Polar coordinates, Further calculus, Hyperbolic functions, Further vectors, Differential equations, Proof, Numerical methods.

Mechanics – Momentum and collisions, Work, energy and power, Circular motion, Centres of mass and moments, Dimensional analysis.

Statistics – Discrete random variables, Poisson distribution, Continuous random variables, Chi squared tests for association, Exponential distribution, Confidence intervals, Inference – one sample t distribution, Type I and Type II errors.

How will I be studying?

This course will be taught by two teachers. Teaching will mainly be teacher led but students will be fully involved in the development of ideas. The course provides a stimulating experience for those who really enjoy the subject and there is strong teacher support. In addition to regular homework students will also be encouraged to explore new ideas themselves.

How will I be assessed?

The course is assessed externally through three written exam papers sat at the end of the two years, each lasting two hours and contributing a third of the A Level marks.

Paper 1 and Paper 2 – Pure Maths.

Paper 3 – One section on Mechanics and one section on Statistics

Where Next?

Further Maths is a Russell Group 'facilitating subject' and is particularly recommended for those considering studying university courses with a high mathematical content (such as mathematics, engineering, physical sciences or computer science). Studying Further Maths also frequently leads to a reduced university offer for these degree subjects. It is also accepted (alongside other subjects) as an appropriate qualification for entry to almost any career or degree course. There is a shortage of people with strong mathematical skills and

students with Further Mathematics commonly take up top professional careers in a wide variety of areas. These include insurance and actuarial work, financial services, engineering, scientific and operational research, IT and industry.