# FURTHER MATHS

## Course

A level Further Maths

## Exam Board

AQA - Linear course

## Entry requirements

This course must be studied in conjunction with A level Maths. A strong grade 8 or higher at GCSE Maths. A real passion for Mathematics.

## Why study Further Mathematics?

Further Maths is fun and rewarding. It broadens your mathematical skills and promotes deeper mathematical thinking. You will be introduced to interesting new areas of pure mathematics such as complex numbers and apply mathematics in a wider range of contexts.

## Course content

All students must complete a compulsory component comprised of;

· Mathematical argument, language and proof
· Mathematical problem solving
· Mathematical modelling.

The methods involved in this component include;

1. Proof
2. Complex Numbers
3. Matrices
4. Further Algebra and Functions
5. Further Calculus
6. Further Vectors
7. Polar coordinates
8. Hyperbolic functions
9. Differential Equations
10. Trigonometry
11. Coordinate geometry

Students also choose to study two of the following components.

· Optional application 1 - Mechanics
· Optional application 2 - Statistics
· Optional application 3 - Discrete

## Assessment

3 written papers of 100 marks, each lasting 2 hours and with equal weight in the A Level qualification. All questions are compulsory. There is no coursework component which allows students more time to concentrate on practising their techniques. A scientific or graphics calculator is essential.

## Progression after Sixth Form

Further maths is valuable in all fields but particularly useful If you are planning to take a degree such as Engineering, Maths, Sciences, Computing, Finance/Economics etc.

## Career opportunities

Mathematical competence is a vital component in the fields of technology and business. This subject will also be particularly beneficial for pupils considering careers in Engineering, Physical Sciences or Actuary.

### St Peter's students say...

‘Mrs Pearce, I don't think I would've done a Maths degree or even A level further Maths without you and Mrs Jewson inspiring me to study maths in more depth, so I owe both of you a huge debt.’

*Kieran - Maths Undergraduate at Cambridge University 2017*

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