

# Further Maths

## A Level



**ST. MARY MAGDALENE**  
C OF E SIXTH FORM  
PENINSULA CAMPUS  
*Excellence through innovation,  
founded in faith since 1840.*

Exam Board: **Edexcel**

### What is Further Maths?

The A-Level in Further Mathematics gives gifted mathematicians an opportunity to study the subject in greater depth than time allows for in their single Maths A-Level course. It allows pupils to meet new and important mathematical topics such as matrices and complex numbers, which can act as ideal preparation for further mathematical study or support work in other areas of the sciences.

### What will I study?

#### **Paper 1 & Paper 2 – Core Pure Mathematics:**

Proof, complex numbers, matrices, further algebra and functions, further calculus, further vectors, polar coordinates, hyperbolic functions, differential equations.

#### **Paper 3 & Paper 4 – Option Modules:**

Pupils will study two of the following modules, decided by the school: Further Pure Mathematics 1, Further Pure Mathematics 2, Further Statistics 1, Further Statistics 2, Further Mechanics 1, Further Mechanics 2, Decision Mathematics 1, Decision Mathematics 2.

### What entry requirements will I need?

In addition to the general entry requirements you will need a grade 8 in Maths, and will need to be taking Maths A-Level.

### How will I be taught?

Students will learn through a variety of methods including independently working, discussion and group work. Students will be encouraged to take increasing responsibility for their own learning and the evaluation of their own mathematical development. They will be taught to use their mathematical knowledge to make logical and reasoned decisions in solving problems both within pure mathematics and in a variety of contexts, and communicate the mathematical rationale for these decisions clearly.

### How will I be assessed?

**Paper 1:** Core Pure Mathematics 1 – 1.5 hour written paper (worth 25% of the A Level)

**Paper 2:** Core Pure Mathematics 2 – 1.5 hour written paper (worth 25% of the A Level)

**Paper 3:** Further Mathematics Option 1 – 1.5 hour written paper (worth 25% of the A Level)

**Paper 4:** Further Mathematics Option 2 – 1.5 hour written paper (worth 25% of the A Level)

### What career opportunities does this open up?

Further mathematics qualifications are highly regarded and can be useful for degrees such as engineering, computing, finance/economics, and of course mathematics itself! Students who take further mathematics are demonstrating a strong commitment to their studies that is useful for any mathematically rich degree, and subsequent careers in science or industry. Some mathematics degrees have reduced entry requirements if Further Mathematics is included.