

# Mathematics

## A Level

**Examination Board: EDEXCEL**

### Aims of course:

To encourage candidates to:

- Understand mathematics and mathematical processes and to promote confidence, enjoyment and provide a strong foundation for further study;
- Understand coherence and progression and how different areas of mathematics are connected;
- Apply mathematics in other fields of study;
- Represent situations mathematically and understand the relationship between problems in context and mathematical models.

### Programme of study

Level	Module	Module Description
AS	Core	Proof, algebra and functions, coordinate geometry, sequences and series, trigonometry, exponentials and logarithms, differentiation, integration, vectors.
AS	Mechanics	Quantities and units in mechanics, kinematics, forces and Newton's laws.
AS	Statistics	Statistical sampling, data presentation and interpretation, probability, statistical distributions, hypothesis testing.
A level	Core	Proof, algebra and functions, coordinate geometry, sequences and series, trigonometry, exponentials and logarithms, differentiation, integration, vectors, numerical methods.
A level	Mechanics	Quantities and units in mechanics, kinematics, forces and Newton's laws, moments.
A level	Statistics	Statistical sampling, data presentation and interpretation, probability, statistical distributions, hypothesis testing.

### Approaches to learning:

In Mathematics the students study the full A Level course over two years. All students study all three subjects: Pure, Mechanics and Statistics. There are three assessment and learning objectives:

- Use and apply standard techniques
- Reason, interpret and communicate mathematically
- Solve problems within mathematics and in other contexts

### Who is this course aimed at?

Students who wish to pursue a further study in Mathematics, Engineering, Business or related work.

Mathematics is a course worth studying in its own right. It is challenging but interesting. It builds on what you have learnt at GCSE, but also involves new ideas that some of the greatest minds in history have produced. It serves as a very useful support for many other qualifications as well as being a much sought-after qualification for the workplace and courses in higher education.

### Minimum entry requirement:

**Grade 6 in Mathematics + 4 GCSEs A\*– C including English**

*All subjects will be terminally examined at the end of two years, with internal exams throughout year 1 and 2.*

*Please note: The course is dependent on numbers registering their interest to study at A Level. The subject will only run if there are sufficient student numbers.*