

# **A LEVEL MATHEMATICS**

### **OVERVIEW**

A Level Mathematics was the most popular A Level in 2016 with over 92,000 students completing the course nationally. A Level Mathematics is a fascinating course that requires a mature and dedicated mind, and enthusiasm for studying all aspects of the subject. It can be challenging at times, both in terms of complexity of the problems to be solved and in the volume of content that is to be covered. The transition to the A Level standard of mathematics is demanding, we therefore support students from the beginning of the course to ensure overall A Level success. This includes regular diagnostic assessments, detailed feedback and additional support opportunities.

### ENTRY REQUIREMENTS

GCSE Grade 6 in Mathematics

### ASSESSMENT

Three external examination papers which are equally weighted.

Two-thirds of the assessment will be based on students' understanding of Pure Mathematics which comprises of the areas of calculus, algebra, geometry and trigonometry all of which will develop, challenge and stretch students' mathematical skills. The remaining third will assess students' understanding of Applied Mathematics in the form of statistics and mechanics (the study of motion).

### **COURSE UNITS**

#### Pure Maths:

- Proof
- Algebra and Functions
- Co-ordinate Geometry in the (X, Y) Plane
- Sequences and Series
- Trigonometry
- Exponentials and Logarithms
- Differentiation
- Integration
- Numerical Methods
- Vectors



#### **Statistics:**

- Statistical Sampling
- Data Presentation and Interpretation
- Probability
- Statistical Distributions
- Statistical Hypothesis

#### **Mechanics:**

- Quantities and Units In Mechanics
- Kinematics
- Forces and Newton's Laws
- Moments

# **FUTURE OPPORTUNITIES**

An A Level qualification in mathematics is essential if you want to pursue a degree course in mathematics or its related courses, such as engineering and physics. Some university courses, such as computer science, require an A Level in mathematics. Previous students who successfully completed this course have gone on to careers in engineering, medicine, accountancy, business, economics, insurance and surveying.

## FURTHER INFORMATION

If you enjoyed studying GCSE mathematics and have a high level understanding of algebra topics as well as a logical mind with a talent for problem solving, then this is the course for you. A Level mathematics students need to be dedicated, hardworking and effective communicators, with a determined attitude. This course suits those who have an aptitude for independent learning and enjoy a challenge.

For further information, contact us:

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