# A Level Mathematics and Further Mathematics

## **Mathematics**

# Pure Mathematics, Mechanics & Statistics 60313079

Students will have the opportunity to refine numerical skills and to develop new skills to solve problems in a variety of both practical and theoretical contexts. Some of the most exciting aspects include topics such as: calculus, further trigonometry, logs and exponentials along with sequences and series.

In Mechanics we will look at the motion of a body under constant and variable acceleration, including the motion of a projectile and when we have connected particles. We will also look at how the forces act when there is motion.

Within Statistics we develop knowledge from GCSE by looking at different statistical and probability distributions and how these methods might be used in the outside world with hypothesis testing.

Assessment: 100% Exam

A Level Pure Maths papers 1 & 2 (2 x 2 hours)

Mechanics & Statistics paper (2 hours).

#### **Popular Subject Combinations**

Students are introduced to both Mechanics and Statistics thereby supporting an extensive range of A level and degree subjects across the Sciences, Engineering, Humanities and Social Sciences. Mathematics underpins many other subjects and acts as the glue between them

## **Further Mathematics**

Pure Mathematics, Mechanics & Statistics 60313456

The A-level Further Mathematics specifications are designed to broaden and deepen the knowledge and skills taught in the A-level Mathematics specifications. Students will have the opportunity to study Pure Maths, Mechanics and Statistics to a greater depth. A deep enjoyment of Mathematics is a pre-requisite for this course as, by taking Mathematics & Further Mathematics, students will spend half their working week immersed in Mathematics.

Assessment: 100% Exam

Further Mathematics Pure papers 1&2 (2 x 1.5 hours)

Further Mathematics Option papers 1&2 (2 x 1.5 hours).

#### **Popular Subject Combinations**

Further Mathematics is a highly valued A level included in the list of facilitating subjects identified by the Russell Group of Universities. It is particularly useful in support of Physics and all the Engineering disciplines.



#### **CAREER PATHS**

Career opportunities are unlimited for those with a high level of mathematics. Career paths in business, science or technical fields are common or in disciplines such as social services, government and education.

### **ENTRY REQUIREMENTS:**

A Level Maths- Grade 9-7 in GCSE Mathematics or GCSE Grade 6 with strong recommendation from GCSE Mathematics teacher.

Further Mathematics A Level- GCSE Grade 9-8 in Mathematics or GCSE Grade 7 with a strong recommendation from GCSE Mathematics teacher. Mathematics A Level must also be studied as a requirement of entry to Further Mathematics.