

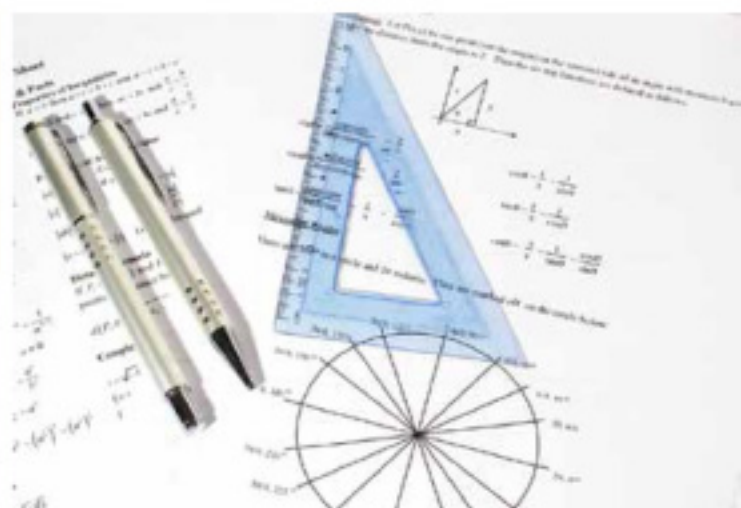
# MATHEMATICS - A LEVEL

## Course introduction

An A Level in Mathematics is highly regarded by the majority of employers and universities, precisely because of the demands it makes and the skills it develops. The course, for example, will help you to develop the techniques required for science-based disciplines as well as providing a solid foundation for further mathematical study

## Entrance requirements

Students who wish to study Maths must have studied the Higher Paper at GCSE in Maths, achieving at least a grade 6. Students will also be expected to have achieved a high point score in their GCSEs overall.



## How the course is taught

Students are taught for 5 one hour periods per week and are expected to study independently for at least an extra 4 hours per week. Students will be involved in problem solving and discussion which is aimed to develop an analytical understanding of the mathematical concepts required. This will be done through a combination of task-focused teaching and practice using both text book and ICT sources.

## Areas covered by the course

The Core Mathematics topics extend the students' mathematical knowledge from GCSE. We revise and build on such topics as Graphs, Sequences and Trigonometry while introducing Calculus, which is the foundation of most advanced topics. The techniques introduced here form the basic mathematical knowledge required for science, engineering, economics and many business higher education courses.

The Statistics topics develop GCSE Data Handling and introduce new areas such as hypothesis testing and linear regression. The study of probability is taken to a much greater depth than at GCSE. An ability to use the ideas from this module is important in the fields of management, accountancy, medical research and psychology.

The Mechanics topics cover forces, projectiles, Newton's Law of Motion, energy, work and power. This makes links with the Physics A Level (although there is no requirement to have taken Physics). The topics covered here apply to the fields of Science and Engineering.

## How the course is assessed

### Exam board – Edexcel

This is a 2 year A Level with exams taking place in June of Year 13.

3 Papers each – 2 hours.

2 Papers cover - Pure Mathematics

1 Paper covers – Statistics and Mechanics

## Career opportunities

'A' level Mathematics is a valuable qualification and can lead to a wide variety of career paths for example in science, engineering, accountancy or commerce. This A-level can be taken with a variety of other possible courses.

