

Mathematics



Why choose Mathematics?

- You may enjoy the challenges of Mathematics
- You may be studying other AS/A2 levels that are Mathematics related
- You may be wanting to study Mathematics at University
- You may want a career which involves Mathematics

Whatever your reasons for choosing Mathematics AS/A2 level, it should always be remembered that Mathematicians are in great demand in many areas of employment. A good pass in AS/A2 level Mathematics not only indicates a specialist knowledge in a widely used subject, but also shows that the student is capable of thinking clearly and logically.

Mathematics graduates are welcomed in almost all occupations such as, in the Civil Service, Finance, Banking, in technical, computing, scientific and engineering work in industry, in government and development institutions. At a time when the employment situation is uncertain, the graduate Mathematician remains in constant demand.

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What are the GCSE requirements to undertake an AS/A2 Level in Mathematics?

All of the courses require a sound knowledge of the GCSE Higher Tier syllabus, and a minimum of Grade B is recommended.

Are there any special skills I require for AS/A2 Level Mathematics?

Mathematics is concerned with analysing situations, making links with ideas, problem solving and recognising order and pattern. A student will need the strength of will to follow a problem through, and must be prepared for hard work from the outset.

How many Examinations are there for AS/A2 Levels Mathematics?

External examinations take place in January and June of Year 12 and also in January and June of Year 13, therefore making examinations very frequent in both years 12 and 13. Single mathematicians will sit C1 in January of Year 12, and C2 and one of the M1 or S1 in June of Year 12 with the rest being completed in Year 13. Component examinations consist of one paper lasting one hour thirty minutes.

What types of AS/A2 Level Courses are there in Mathematics?

We follow the OCR MEI syllabus, students wishing to take **one** A Level subject in Mathematics complete the following 6 components:

Pure Mathematics

Examination papers C1, C2, C3 & C4

Mechanics

Examination paper M1

Statistics

Examination paper S1

There are many AS (Advanced Subsidiary) examination courses offered to students. These are:

Mathematics

Pure Mathematics

Statistics

Mechanics

Applied

In particular, an AS in Pure Mathematics would complement any course of study at AS/A2 Level.

Each of these are a year or eighteen-month course, which run concurrently within AS/A2 Level classes.

How many homework assignments will I have a week?

In general there will be one/two assignments but this will vary depending upon other commitments e.g. tests or internal examinations.

Is there any coursework required?

C3 has a 20 % element of coursework which involves finding numerical solutions to cubic or higher equations using a number of techniques

What teaching methods are used?

There are a variety of methods available to staff, but most of the teaching is by formal lecture. The method of presentation may involve chalk/white boards, a computer projector, photocopied sheets, or even computer simulation and also by course work for the C3 component. In all lessons students are encouraged to take an active role and the purchase of a graphical calculator is recommended.