

A Level Mathematics Course Guide

Course content

The A Level Mathematics course is a linear two-year course with external exams in the summer of the second year. Students will sit three two-hour papers, each worth a third of the overall grade. Two papers will be on Pure Maths and one will be on Statistics and Mechanics. Students are allowed a calculator in all three papers and this should be the Casio FX-991EX Classwizz. There is no choice of content and every maths student will study the same topics.

Entry Requirements

For automatic entry onto the course a student will need a level 7 or A grade, students coming with a level 6 or B grade will commonly be allowed to trial the subject for four weeks with support, provided there is a good reason for trying to course. The trial consists of the first four tests, weekly algebra support workshops, discussions with the Head of Mathematics and a fourth subject to study alongside maths in case the trial is unsuccessful.

Course Structure

Students will have a test at the end of the first, second, third and fourth weeks. These tests will not contribute to the final A Level grade but will instead help ensure that students are on an appropriate course and that any extra support required is put in place. For the rest of the course, students will have a cumulative homework every two weeks. These will provide the opportunity to reflect upon all work done so far and allow students to choose topics to work on in their directed study time. We also complete a series of formal assessments, in line with the whole college; the first of these will be in December of the first year, with two more later in the year. They give students the opportunity to practise working under exam conditions and give teachers the evidence required to write predicted grades. In the run up to the external exams, Maths teacher will give plenty of opportunity to complete examples of practice maths exams.

Support

The Maths department organises workshops (normally) in lunchtimes. If you are identified as needing extra support in a particular area, these workshops will appear on your timetable. However, there are also many drop-in sessions that you can go to if there is a particular topic or homework on which you would like support. Posters will go up around the Maths department advertising when these sessions are. If further support is deemed important then students could be teamed up with a Further Mathematician in our peer mentoring scheme, or added to a second set of maths lessons to give them a second bite of the apple for each lesson and some time to consolidate their learning in class.

Fast Track Maths

With at least a Level 8 or A (preferably A*) at GCSE students may trial in our Fast Track programme in order to study Further Maths in their second year. Around one third of students switch to the standard maths programme after a test at the end of the first four weeks, so it is perfectly safe to try and completely normal for students to switch programme. With 6 lessons a week, the overall teaching time for the A Level qualification is significantly lower, putting a heavy emphasis on completing 8 hours a week of out of class studies for consolidation of the content. Any students that pass the trial should be capable of completing the course successfully, but if a student appears unprepared to take the June exam after the March assessments, for safeties sake they will delay their entry until the second year.

Further Maths

Completing fast track maths allows a student to study the Further Maths A Level. This is a complete second A Level in mathematics and is the most academically prestigious and challenging A Level course. There is some choice of course content for students, but what I offer changes year on year, commonly there will be a mechanics-based option and a different option available. The number of lessons increases to 8 lessons a week, which allows for a lower out of class commitment so students can put more time into their other subjects during their more challenging second year. It is almost essential to study Further Mathematics to take on a degree in the subject, and it is particularly useful to Engineers and similarly mathematically based subjects. It is also very useful for students applying for any competitive course, regardless of whether or not it has any mathematical content.