

Core Maths (Certificate in Mathematical Studies) at Barr's Hill School

Course description

Maths is for everyone. It is essential that students are equipped with the right skills to reach their future destination, whatever that may be. Level 3 Mathematical Studies (also known as Core Maths) focuses on using mainly familiar maths in a range of contexts to help prepare students to be competent and confident in using maths in their studies, careers and lives.

Course content

There are some important topics from GCSE that will be revisited including averages, percentage change and estimation. A variety of calculations are covered from other Level 3 courses such as Psychology, Sociology and the Sciences. Students will learn about the collection, analysis and graphical representation of data whilst also looking at financial calculations relating to income tax, mortgages and loans. Critical Path Analysis will be used to plan complex tasks and the basic theory of probability will be studied.

Students will learn the unique 'Fermi' estimation. This is a technique used to find fast, rough estimates of quantities which are either difficult or impossible to measure directly. Spreadsheets will be used to perform further financial calculations, such as those involving interest rates. Cost benefit analysis will be applied to problems where there is an element of uncertainty, and students will learn how to critically evaluate data.

Entry requirements

Standard Professional Advanced entry requirements of 3x Grade 5+ including Maths.

Assessment

The course is assessed by two exams lasting 90 minutes each.

Future opportunities

This course is highly suitable for students who are taking A Levels which rely on applying mathematical techniques (accounting, geography, sciences, business, economics,), and who wish to go on to study courses at university which require a level of maths beyond GCSE grade C (economics, psychology, business, computing, geography, sociology) as well as technical and vocational qualifications.

GCSE Maths at Barr's Hill School

Course description

The preparation for GCSE mathematics started the day you learnt to count. Everything since then has been building up your knowledge and methodology towards this examination.

In the next two years you will extend and consolidate your knowledge of concepts and techniques in the areas of arithmetic, algebra, geometry, trigonometry and statistics towards the GCSE.

Course content

Much of the course builds on and extends topics with which you are already familiar, such as number, algebra, shape and space work and data handling. New topics are introduced, which include trigonometry, Theorem of Pythagoras and simultaneous equations. Statistics, involving the collection, analysis and presentation of data is an important part of the course.

Entry requirements

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Assessment

The students will sit three exams (90 minutes each) consisting of one non calculator and two calculator papers

Future opportunities

Maths helps supports the study of subjects like Physics, Chemistry, Engineering, Computing, Economics, Business and Biology which can also help with your Maths revision. But studying Maths alongside an essay subjects like English or History can help keep your options open for more jobs and university courses.