

Core Maths – Mathematical Studies

Why study Core Maths?

The Core Maths qualification has been developed for those students who enjoyed Mathematics at GCSE level but do not want to continue to A Level because of the focus of that course on algebra, geometry and calculus.

Core Maths is increasingly being recognised by Universities and Further Education establishments as a key qualification for their courses that require the ability to analyse and comment on statistical data. Employers also recognise the skills required to study a maths course of level 3 standard and it is therefore very desirable.

Core Maths is a L3 qualification with the final exam equivalent to an AS level exam in UCAS points.

But most of all we hope you will choose Core Maths because you have enjoyed analysing data and problem solving at GCSE. We will take your understanding of Statistics further and show you how your GCSE calculation techniques are used in the real world.

What does the course cover and what is expected of you?

The Core Maths course studied at Mary Hare is the AQA Mathematical Studies course and the students cover two modules (1) the core content and (2) statistical techniques.

The core content has 3 units. Unit 1 covers statistical data analysis including using averages and the standard deviation, cumulative frequency graphs, box and whisker plots and histograms. Unit 2 is on personal finance which covers a variety of topics including tax, interest rates, mortgages and bank accounts. Unit 3 covers modelling and estimation techniques including the Fermi estimation process.

The statistics module expands on the data analysis of the core module. It covers critical analysis and the ability to read and criticise reports. The Normal Distribution statistical model is used to analyse real life situations and interpret results statistically using confidence intervals. The final element of this module looks at regression lines and correlation again considering models and equations of real life situations.

As well as explanations of new topics, much of the lesson time will be spent in group discussions of problems and how they relate to the world outside of the school environment.

Staff will use a variety of activities to make the lessons enjoyable and help students get a good grasp of new concepts. We make use of the department laptops to explore real life situations and statistics.

Prep will usually be questions from worksheets or investigation tasks linked to the current topic, e.g. producing a summary of the various student bank accounts available. Teachers are happy to share their lesson notes and are always happy to help you sort out any difficulties. In addition to the lessons you should expect to spend 2-4 hours a week to complete written work, to review past topics and prepare for assessments.

Where can it take you?

Success in Core Maths (equivalent of AS Mathematics) opens a large number of doors in further education and employment. Core Mathematics is increasingly seen as an essential requirement for courses in Social Sciences, Psychology, Business, Geography and other courses having a requirement to analyse data.

Entry requirements

You will need a level 4 or above.

Course assessment

No coursework.

The students will be entered for the Edexcel L3 Award in Statistical Methods in the May of year 12.

The Core Maths Exam is taken in the summer of year 13. It will consist of two 1 ½ hour exams; one on the core content and the second on Statistical Techniques.

Exam Board

AQA (Mathematical Studies)

Student View

"Core maths is practical maths and relates to the real world more than my GCSE. I saw how statistics is used in many areas and I also understand more about tax, bank accounts and credit cards."

Teachers Tip

The small groups really help everyone to keep involved in the lessons and to get the help they need.

Discussing the use of maths in the real world gives you an eye-opener on what you need to think about in the next phase of your life.