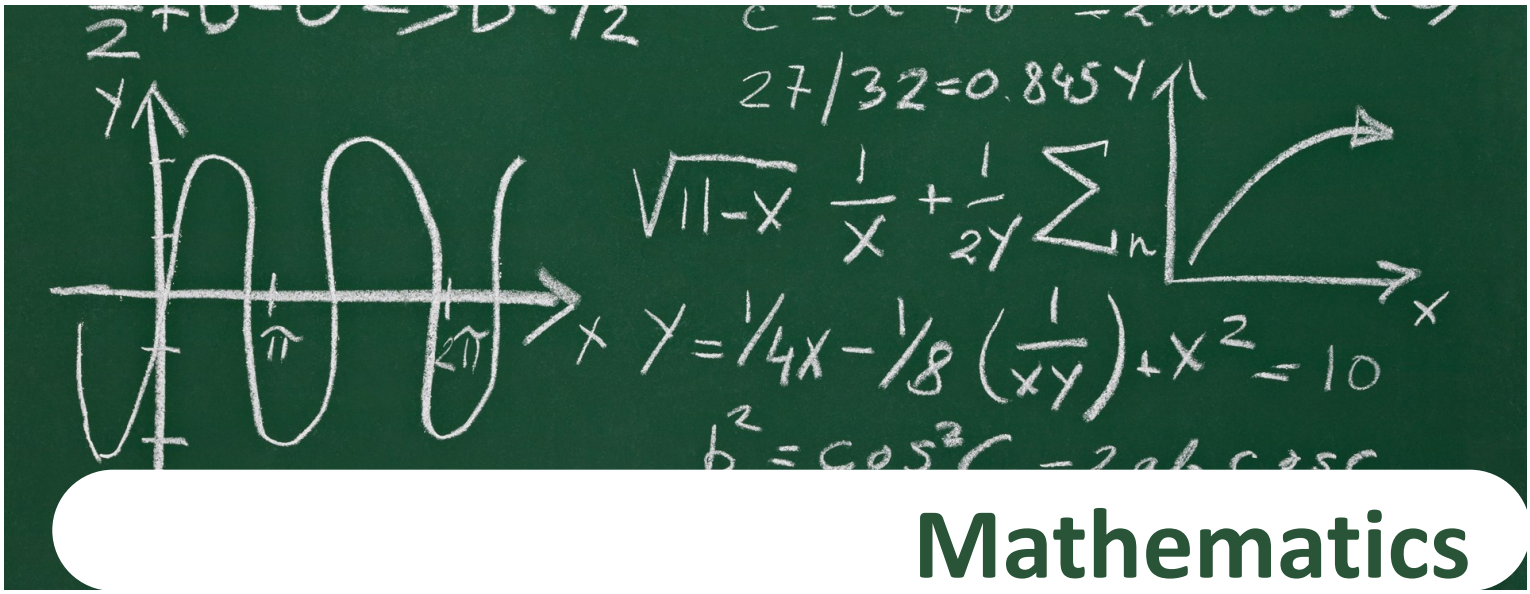


Mathematics

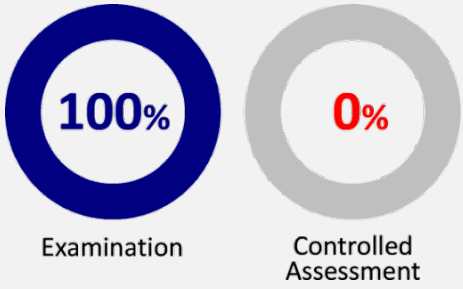
Overview

The skills gained from studying a science, technology, engineering or mathematics (STEM) subject at A level or degree level are in demand by employers. Graduates with STEM degrees earn on average 5% to 10% higher salaries than the mean for all graduates. These subjects are underpinned by mathematics. Students entering Year 12 in Sept 2017 will be the first to study the new specification in Mathematics. This new course has been designed to ensure students entering higher education are more rigorously prepared. It also requires students to study all three of the disciplines, pure mathematics, mechanics and statistics.

The course consists of modules in pure mathematics where you will study coordinate geometry, algebra, trigonometry, calculus and numerical methods. You will also work with several types of mathematical proof. In Mechanics you will study forces, inertia, energy, statics and dynamics. In Statistics you will study probability theory, significance levels, confidence intervals and various statistical distributions. An important aspect of the new specification is that you are required to work within real life contexts more frequently, for example, working with large data sets in Statistics. Where relevant, ICT is used to make the Mathematics more accessible.

The department's results in Mathematics are consistently good and a number of our students have gone on to study Mathematics courses at universities with highly respected Mathematics departments.

Assessment



Examining Board

WJEC

Requirements

Candidates will need to have studied GCSE Mathematics at Higher tier, and obtained (preferably) grade A or above. Any student achieving a B grade at Higher tier would need to carry out supplementary study work in order to cope with the course demands.

Departmental Staff

Mrs. D. Roulston-Jones
Mrs. A. Bevan
Mrs. E. Williams
Mrs C. Fedor
Mrs H. Hopkins

What our students say…

"A level Mathematics is a challenging yet hugely rewarding subject. It really makes you think carefully and deeply, and hence improves your understanding and knowledge."

Bronwen: Year 13

Course Outline

Units for AS Mathematics

Maths Unit 1 – Pure Mathematics
Maths Unit 2 – Statistics and Mechanics

Units for A2 Mathematics

Maths Unit 3 – Pure Mathematics
Maths Unit 4 – Statistics, Mechanics, Differential equations and Numerical Methods.

Career and Progression Opportunities

Some of the most common careers which mathematical sciences graduates pursue include actuaries, economists, statisticians, management consultants, business analysts, science and technology professionals, programmers, software developers, financial analysts and teaching and research professionals.
However, if you enjoy mathematics, you don't need to know which career path you would like to take at the end of your degree. What you can be sure of is that you are likely to have good job prospects, as well as options for further study or research.

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