

Maths

ACADEMIC
& APPLIED

Level 3

A Level Course Leader: Mr A Daw

Entry requirements

- Grade 7, 8 or 9 in GCSE 9-1 Mathematics
- A passion for the subject
- Excellent problem solving skills
- Analytical approach applying mathematics to the real world

Why choose this course?

If you are thinking of looking for a job straight after A levels, Maths is a great "core" subject - in fact, it is one of the most important subjects you can take. This is because the ability to understand and manipulate numbers and mathematical concepts is extremely useful for almost any job.

There is always a demand for employees who can think logically and process information accurately - skills which an A level in Maths will teach you.

While you obviously have to study Maths in order to be a mathematician, you don't have to want to be a mathematician in order to keep studying Maths. For a degree in Physics, Engineering or Actuarial Science, you will need a good Maths A level.

However, there are many degrees which do not specify any particular subjects they wish you to have taken and, for many of these, Maths will also be an excellent choice.

Web Links

www.hegartymaths.com

www.mathscareers.org.uk

qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html

What does the course involve?**Paper 1: Pure Mathematics (*Paper code: 8MAO/01)****Written examination: 2 hours 62.5% of the qualification 100 Marks****Content overview**

- Topic 1 - Proof
- Topic 2 - Algebra and functions
- Topic 3 - Coordinate geometry in the (x, y) plane
- Topic 4 - Sequences and series
- Topic 5 - Trigonometry
- Topic 6 - Exponentials and logarithms
- Topic 7 - Differentiation
- Topic 8 - Integration
- Topic 9 - Vectors

Student must answer all questions.

Calculators can be used in assessments.

Paper 2: Statistics and Mechanics (*Paper code: 8MAO/02)**Written examination: 1 Hour 15 minutes 37.5% of the qualification 60 Marks****Content overview**

Section A: Statistics

- Topic 1 - Statistical sampling
- Topic 2 - Data presentation and interpretation
- Topic 3 - Probability
- Topic 4 - Statistical distributions
- Topic 5 – Statistics hypothesis testing

Section B: Mechanics

- Topic 6 - Quantities and units in mechanics
- Topic 7 - Kinematics
- Topic 8 - Forces and Newton's laws

Students must answer all the questions.

Calculations can be used in the assessment.

Possible career pathway

Mathematics is a well-regarded discipline by employers because of its intellectual rigour, so it has a really wide range of career outlets. Mathematics graduates are in high demand for their ability to think logically and precisely, for their problem-solving and analysis skills, as well as for their facility with numbers.