



Maths

Subject to Change

Level 3

AS Level / A Level *Course Leader: Mr R Whitehouse*

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?

Mathematics has played a central role in the history and development of human civilisation. It is the tool and language of many diverse disciplines and underpins all of science. Maths has a key role in subjects as diverse as medicine, computer technology, space exploration and music and is a universal language, understood across the planet whilst, at the same time, surrounding us in our daily lives.

Undoubtedly, Maths will play a pivotal role in shaping our society in the future.

Universities value Maths and it is a pre-requisite subject for a huge number of degrees. People who have studied Maths/ Further Maths have an excellent choice of careers, many of which involve very well-paid professions.

Web Links

www.uplearn.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: 9MA0/01

Paper 2: Pure Mathematics *Paper code: 9MA0/02

Written examination: 2 hours 33.33% 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 - Numerical methods
- Topic 10 - Vectors

Paper 1 and Paper 2 may contain questions on any topics from the Pure Mathematics content.

Student must answer all questions.

Calculators can be used in assessments.

Paper 3: Statistics and Mechanics

***Paper code: 9MA0/03**

Written examination: 2 Hour 33.33% of the qualification 100 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
- Topic 9 - Moments

Paper 3 will contain questions on topics from the Statistics content in Section A and Mechanics content in Section B.

Students must answer all questions.

Calculators 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.

Note: This is our current offer which is subject to change