

Course title: Mathematics A Level OCR

| Academic year:   | 2026                           |  |
|------------------|--------------------------------|--|
| Course Venue:    | Sir Graham Balfour High School |  |
| Course Type:     | A level                        |  |
| <b>Duration:</b> | 2 years                        |  |

### **Course Content:**

The new Advanced level course has compulsory content consisting of Pure Mathematics, Mechanics and Statistics. There is little variation between examination boards.

| Strand           | Content                            | Assessment Method             |
|------------------|------------------------------------|-------------------------------|
| Pure Mathematics | Proof                              | Assessed in papers 1, 2 and 3 |
|                  | Algebra                            |                               |
|                  | Graphs                             |                               |
|                  | Sequences                          |                               |
|                  | Trigonometry                       |                               |
|                  | Logarithms                         |                               |
|                  | Calculus                           |                               |
|                  | Vectors                            |                               |
| Mechanics        | Kinematics                         | Assessed in paper 2           |
|                  | Motion under gravity               |                               |
|                  | Working with forces                |                               |
|                  | Newton's laws                      |                               |
|                  | Simple moments                     |                               |
| Statistics       | Working with data from a sample to | Assessed in paper 3           |
|                  | make inferences about a population |                               |
|                  | Probability calculations           |                               |
|                  | Binomial distribution              |                               |
|                  | Normal distribution                |                               |
|                  | Hypothesis testing                 |                               |

Students are expected to complete transition materials before commencing the course. The content of these are assessed during the first weeks of the first term.

# **Additional Information:**

Students of Mathematics will:

- Develop their understanding of mathematical principles and their interest in the subject.
- Extend their range of mathematical skills and techniques and use them in more difficult problems.
- Develop the ability to apply mathematical techniques in other subjects.
- Acquire the foundation necessary for the further study of Mathematics and other disciplines.















- Develop the ability to recognise real-life situations which can be modelled mathematically, and knowledge of the appropriate procedures to be followed in order to produce useful results.
- Recognise situations where the use of modern technology is appropriate and be confident in its application.
- Develop confidence and enthusiasm in their approach to the subject.

## **Entry requirements:**

The standard entry criteria to study in the sixth form are a 9-4 in at least seven different subjects, including English and mathematics, which would usually be at grade 4 or above.

To study Mathematics at Advanced level you must achieve at least a grade 6 at GCSE.

#### Assessment:

The structure of assessment for OCR is for three examination papers. Paper 1 assesses Pure Mathematics, paper 2 assesses Pure Mathematics and Mechanics and paper 3 assesses Pure Mathematics and Statistics

### **Financial Information:**

All students are provided with course-based textbooks as well as free access to a dedicated subscription based website providing a vast array of support materials.

## **Future opportunities:**

Mathematics A level is essential to many scientific/engineering/financial degree courses and is seen as desirable by many others.











