

## A LEVEL

Exam board OCR

# FURTHER MATHEMATICS

### SPECIFIC ENTRY REQUIREMENTS

This option is chosen in addition to A-Level mathematics, as it builds on work covered on that course. Being a more difficult A-Level, this course is aimed at students achieving at least grade 7 in GCSE mathematics.

Students interested in this option are strongly advised to discuss it with Mr Campion at the earliest opportunity. Those students wishing to take this course must be capable and committed, and have the capacity to manage a large proportion of individual study

### COURSE CONTENT

This course provides an introduction to the mathematics of new topics such as complex numbers, matrices, polar co-ordinates and hyperbolic functions that are not studied as part of the standard A-Level course. Other topics, such as calculus, are taken much further, and explored to a greater depth. Students will study mechanics and statistics, as with the single A-Level, but again in more depth.

### EXAMINATIONS AND ASSESSMENTS

**Papers 1 and 2** are two-hour assessments of the pure mathematics components of the further mathematics course. **Paper 3** will then give students a choice between a paper on statistics and mechanics, or discrete mathematics and mechanics.

### SKILLS, LINKS AND PROGRESSION

The further mathematics course extends what students can study. It increases the level of depth, rigour and complexity. This gives a broader range of skills appropriate to the study of mathematics, physics or engineering. Students who apply to study mathematics at top universities are expected to have chosen further mathematics if it was available at their school. The course will also give students of physics and engineering a very high degree of mathematical confidence and competence, and there is overlap with some first year university courses. Our students speak highly of the journey that this course takes them on.

### CONTACT

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