What will I learn?

Further Mathematics is designed for the student who has studied Mathematics to a high standard at GCSE and intends to study a degree programme which may contain a high mathematical content, either as a pure subject or within such disciplines such as physics, engineering and technology.

Students will be expected to develop their understanding of the process of mathematical modelling through the study of mathematical methods and to use these skills to:

• Abstract from a real situation
• Solve problems
• Interpret and communicate results

3 exams at the end of the year (no coursework)

AS Level
Paper 1 – Pure Core
Paper 2 – Statistics
Paper 3 – Mechanics

What could this course lead on to?

Mathematics is not regarded as easy but is well respected. At the end of the course students will have improved their analytical skills, become more independent learners and better at problem solving. These skills and the knowledge developed on the course are highly regarded by Higher Education courses and potential employers.

Career Opportunities:
Accountancy, banking, engineering, teaching, computer science, financial consultant, actuary, marketing consultant

Entry Requirements AS Level:
This course is open to both year 12 and year 13 students. The aim of this course is to build on the knowledge, understanding and skills established at GCSE.

It is important that students have at least a grade 8 in Mathematics GCSE or a grade A at AS mathematics. In addition to this, it will require a great deal of work and time over the 1 year course to succeed. An aptitude for algebra is vital at this level.

Key content and assessment		
Title		**Style of Assessment**
Paper 1 – Pure	Complex numbers; Further Algebra; Further vectors; Matrices; Proof	All units are externally assessed by a written examination of duration 75 minutes carrying a total of 60 marks. The weighting of each unit is $33\frac{1}{3}\%$ contributing to AS GCE certification. All papers allow the use of a graphical calculator.
Paper 2 – Statistics	Probability; Discrete Random Variables; Chi-Squared Tests; Correlation; Linear Regression; Statistical Hypothesis Testing	
Paper 3 – Mechanics	Dimensional Analysis; Work, Energy and Power; Impulse and Momentum; Motion in a Circle	

Course Details
Awarding Body: OCR
WebsiteSpecific Number: H235   **Website:** www.ocr.org.uk
Staff Contact: Mr J Hough