

Examination Board
Edexcel
Topics/ Texts Studied
Year 12: the entire A-Level Maths syllabus in one year, plus AS Further Maths: Complex numbers. Matrices. Sum of series. Algebra and functions. Proof. Vectors. Year 13: Complex numbers and De Moivre's Theorem. Maclaurin series. Hyperbolic functions. Polar coordinates. Further calculus. Differential equations. Further Vectors. Conics. t – formulae. Taylor series. Leibnitz's theorem. L'Hopital's rule. Numerical Methods. Reducible differential equations. Momentum and Impulse. Work, energy and power. Elastic strings and springs. Elastic collisions.
Coursework and Practical Elements
No coursework.
Recommended Pre-reading
A Hodges 'Alan Turing, the Enigma', Dr. Richard Elwes 'How to Solve the Da Vinci Code', William Dunham 'Journey Through Genius: The Great Theorems of Mathematics', Leonard Mlodinow 'Euclid's Window: The Story of Geometry from Parallel Lines to Hyperspace'.
Where will this course take me?
Economics, Engineering, PPE, Statistician, Teaching, Research, Accountancy, Insurance, Risk Management.
Why should you study this course?
A level Further Mathematics is fun and rewarding. It broadens your mathematical skills and promotes deeper mathematical thinking. You will be introduced to interesting new areas

of pure mathematics and applied mathematics in a wider range of contexts. For progression to many courses at university it is important to have strong mathematics skills. Those students who had studied Further Mathematics to A level standard reported coping better with the mathematical content of the degree, and as such perceived that they required less additional support throughout their studies. It is generally required for studying mathematics and some physics and engineering degrees at leading universities.

What are the entry requirements?

In addition to the general entry requirements, you will need a grade 8 or above in GCSE Mathematics to study this course.