

Mathematics

Awarding Body
Edexcel

Course Level
AS and A2 level

Course Leader
Mrs S Ravenscroft

Entry Requirements

At least Grade B in GCSE Maths (studied at Higher level)
An enjoyment of the challenge of problem-solving

Course Description

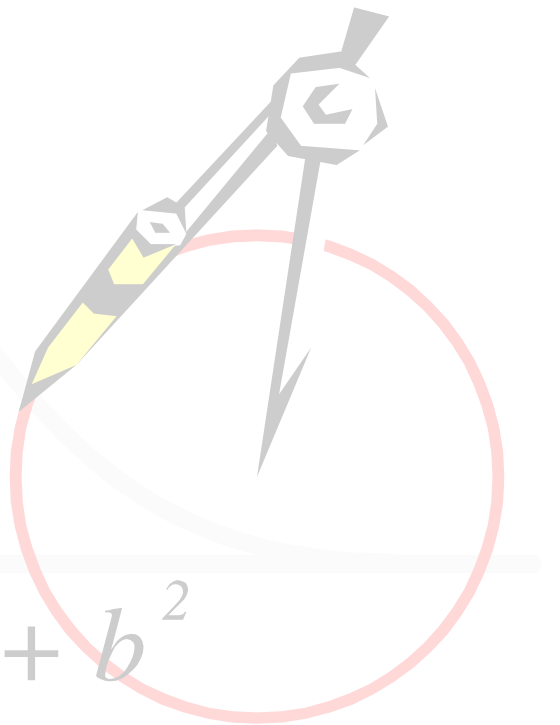
Mathematics at AS and A level is well worth studying in its own right, as well as supporting the sciences. It is challenging and interesting. It builds on GCSE work, but also involves new ideas that some of the greatest minds in history have produced. It is a very sought-after qualification for the workplace and courses in higher education.

AS and A level mathematicians:

- use mathematical skills and knowledge to solve problems.
- solve complicated problems using mathematical arguments and logic.
- simplify real-life situations to use mathematics to show what is and might be happening
- use calculator technology effectively and appropriately, understanding the limitations.

AS Level: 3 units	A2 Level: 3 units
<p>Unit C1: Core Maths 1</p> <p>Algebra & functions; quadratic functions; equations & inequalities; sketching curves; coordinate geometry in the (x,y) plane; sequences & series; differentiation; integration.</p> <p>External assessment: 1½ hr exam</p>	<p>Unit C3: Core Maths 3</p> <p>Algebraic fractions; functions; exponential & log functions; numerical methods; transforming graphs of functions; trigonometry functions & their applications; differentiation.</p> <p>External assessment: 1½ hr exam.</p>
<p>Unit C2: Core Maths 2</p> <p>Algebra & functions; sine & cosine rule; exponentials & logarithms; coordinate geometry; the binomial expansion; radians & applications; geometric sequences & series; trigonometric graphs, identities & equations; differentiation; integration.</p> <p>External assessment: 1½ hr exam</p>	<p>Unit C4: Core Maths 4</p> <p>Partial fractions; coordinate geometry in the (x,y) plane; the binomial expansion; Differentiation; integrations; vectors.</p> <p>External assessment: 1½ hr exam.</p>
<p>Unit M1: Mechanics</p> <p>Modelling with Mechanics; vectors & their applications; kinematics of a particle; statics of a particle; dynamics of a particle moving in a straight line; moments.</p> <p>External assessment: 1½ hr exam</p>	<p>Unit S1: Statistics</p> <p>Mathematical modelling; representing data; summarising data (location & dispersion); probability; correlation; regression; discrete random variables; the Normal distribution.</p> <p>External assessment: 1½hr exam</p>

Further Maths is available if there is sufficient demand



$$(a + b)^2 = a^2 + 2ab + b^2$$

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