

Further Maths

AS + A Level

Contact Person: Mrs R Coates

Course Outline:

Year 12

Further Pure Mathematics - Proof, Complex Numbers, Matrices, Further Algebra & Functions, Further Calculus, Further Vectors
Decision Mathematics - Algorithms & Graph Theory, Algorithms on Graphs, Critical Path Analysis, Linear Programming
Further Mechanics - Momentum & Impulse; Work, Energy & Power; Elastic Collisions in 1D

Year 13

Further Pure Mathematics - development and extension of Year 12 topics, plus Polar Coordinates, Hyperbolic Functions and Differential Equations.
Decision Mathematics - development and extension of Year 12 topics
Further Mechanics—development and extension of Y12 topics, plus elastic strings and springs

Skills/Aptitudes Developed/Required:

You must be a very good mathematician, with a high grade 7 or above at GCSE level. Algebraic fluency is a priority, as are strong organisational and time management skills. You must also be studying Maths.

Additional Considerations:

This is a highly respected course that compliments A Level Maths perfectly. There is a misconception that Further Maths is harder than A Level Maths but generally this is not the case particularly at AS level; the units studied have different content and explore different areas of mathematics. You do not need to be a mathematical genius to succeed in this course; you just need to be interested in mathematics and enjoy a challenge!

Progression Post-18

Maths is essential for many degree courses besides a Mathematics degree and is desirable for many more. These include Chemistry, Physics, Biology, Computer Science, Engineering, Geography, and Economics. Further Maths particularly supports future studies in Maths, Science, Technology and Engineering.

Maths also supports many other courses and careers, for example accountancy, actuarial work, banking, computing, MORSE, and management.

Whatever employment or further education is pursued, Maths A Level is highly respected and Further Maths AS/A Level will open many doors.