



FURTHER MATHEMATICS

Specification: Edexcel

Already planning on doing A-Level Mathematics but want even more of a challenge? Are you planning on taking a Maths-based course at University. Then Further Mathematics may be what you are looking for! Further Mathematics extends the content you learn in the standard A-Level even further, as well as introducing new concepts such as complex numbers and matrices.

Our results at Bishop Stopford for Further Mathematics have been consistently outstanding – in 2022 we achieved 100% A* grades!

We usually recommend taking Further Maths as a fourth A-Level option in the first instance. We usually take students with a grade 9 at GCSE, however students with a grade 8 are encouraged to enquire about taking the subject if you have a strong desire to take the subject. We offer students the chance to take an AS in Further Maths at the end of Year 12, after which students can either continue onto the full A-Level, or then focus on their other A-Levels.

CORE PURE MATHEMATICS	DECISION MATHEMATICS*	FURTHER MECHANICS
Complex Numbers Matrices Series Hyperbolic Functions Roots of Polynomials Vectors Differential Equations Polar Coordinates Methods in Calculus Proof	Algorithms Networks Route Inspection The Travelling Salesman Problem Linear Programming Critical Path Analysis	Modelling of collisions in one and two dimensions Application of finding work, energy and power in different situations Use of Hooke's Law in relation to the modelling of springs and strings

*Students may study Further Pure Mathematics instead of Decision Mathematics

The course is suitable for students who:

- Love Mathematics and are fascinated by the subject
- Have a strong and thorough understanding of the algebraic skills learned at GCSE
- Relish the challenge in solving problems
- Are prepared to work hard and engage in and out of lessons

ENRICHMENT

Senior Mathematics Individual and/or Team Challenges

Opportunity to run or partake in a Maths society

Opportunity to attend a Mathematics Christmas Lecture run by the Open University

For further details please contact Mr Ready