

Mathematics

MATHEMATICS DEPARTMENT

Head of Department: Miss L Jenkins

Why choose the subject? Discover more of the magic of Mathematics, the fascination of summing a series to infinity, the power of calculus, the mystery of real and imaginary numbers and the intricacies of permutations and combinations. These form part of the basic core of the syllabus with the addition of Mechanics and Statistics. In the Mechanics units, problems are formulated in response to given physical circumstances, in conjunction with Physics. The analysis of data and the prediction of results are studied in the Statistics unit which is particularly appropriate for those whose accompanying subjects are Economics, Geography and Biology. Mathematics is a fundamental subject and therefore there is always a demand for skilled mathematicians. Mathematics A-level will also pave the way for many careers.

Who is eligible? This course is intriguing and challenging for those mathematically inclined and it is strongly recommended that you have achieved at least a grade 7 or above in the GCSE examinations.

A LEVEL QUALIFICATION

Year 2017/19 Advanced Level Award Examination Board: TBD	UNIT 1		
	Description of Subject Content	Pure Mathematics 1 Proof, Algebra and Functions, Coordinate Geometry, Sequences and Series, Trigonometry, Exponentials and Logarithms, Differentiation, Integration, Vectors, Numerical Methods.	
	Length of Exam	2 hours	
	Weighting	66.6% of total AS level mark	
	Nature of Exam	Written examination	
	UNIT 2		
	Description of Subject Content	Mechanics Quantities and units in mechanics, Kinematics, Forces and Newton's laws	Statistics Statistical sampling, Data presentation and interpretation, Probability, Statistical distributions, Statistical hypothesis TESTING
	Length of Exam	1 hour	
	Weighting	33.3% of total AS level mark	
	Nature of Exam	Written examination	
	UNIT 3		
	Description of Subject Content	Pure Mathematics 1 Proof, Algebra and Functions, Coordinate Geometry, Sequences and Series, Trigonometry, Exponentials and Logarithms, Differentiation, Integration, Vectors.	
Length of Exam	1 hour 30 minutes		
Weighting	25% of total A level mark		
Nature of Exam	Written paper		

	UNIT 4	
	Description of Subject Content	Pure Mathematics 2 Proof, Algebra and Functions, Coordinate Geometry, Sequences and Series, Trigonometry, Differentiation, Integration, Numerical Methods.
	Length of Exam	2 hours
	Weighting	33.3 % of total A level mark
	Nature of Exam	Written paper
	UNIT 5	
	Description of Subject Content	Mechanics and Statistics Quantities and units in mechanics, Kinematics, Forces and Newton's laws, Moments Statistical sampling, Data presentation and interpretation, Probability, Statistical distributions, Statistical hypothesis testing
	Length of Exam	2 hours
Weighting	33.3 % of total A level mark	
Nature of Exam	Written paper	

AS LEVEL QUALIFICATION

Year 2017/2018 Advanced Subsidiary Award Examination Board: TBD	UNIT 1	
	Description of Subject Content	Pure Mathematics 1 Proof, Algebra and Functions, Coordinate Geometry, Sequences and Series, Trigonometry, Exponentials and Logarithms, Differentiation, Integration, Vectors, Numerical Methods.
	Length of Exam	2 hours
	Weighting	66.6% of total AS level mark
	Nature of Exam	Written examination
	UNIT 2	
	Description of Subject Content	Mechanics and Statistics Quantities and units in mechanics, Kinematics, Forces and Newton's laws Statistical sampling, Data presentation and interpretation, Probability, Statistical distributions, Statistical hypothesis testing
	Length of Exam	1 hour
	Weighting	33.3% of total AS level mark
	Nature of Exam	Written examination

STUDENT VIEW

Mathematics



Mathematics A level broadens your horizons for a multitude of degree courses and career paths in an array of subjects. It is based on the true understanding of techniques, not memory, which provides a challenge that's sets you a base of understanding that can be applied in many situations throughout your life. The teachers do all they can to help you to understand and persevere with you without judgement. It has helped some of the statistical and numeracy areas of A level Biology, Chemistry and Physics. The syllabus is always finished with good time to prepare for the exams.

Claudia Santoni