



# The Grey Coat Hospital

## Key Stage Four Curriculum Plan - *Subject: Further Mathematics A Level*

### Year 12

Half Term (HT)	Topic Area / Focus All topics can be found in the textbooks provided	
	Pure	Applied
HT1	Algebraic expressions Quadratics Equations and inequalities Logarithms Graphs and transformations Straight line graphs Circles Binomial Distribution	Mathematical Modelling Kinematics Statistical Sampling Data interpretation Data representation
HT2	Algebraic methods Differentiation Integration Trigonometry Vectors Exponentials and logs	Probability Forces Statistical distributions Hypothesis testing Variable acceleration
HT3	Algebraic methods Radians Functions and graphs Chain, product and quotient rule Sequences Trigonometric functions Trigonometry and compound angles	Forces and friction
HT4	Binomial expansion Complex differentiation Integration Parametric equations	Regression, correlation and hypothesis testing Kinematics and projectiles
HT5	Proof Numerical methods	Normal distribution Moments and statistics of rigid bodies



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	Differential equations Vectors	
HT6	Complex numbers (FM content)	
<b>Year 13</b>		
Half Term (HT)	Topic Area / Focus All topics can be found in the textbooks provided	
	Teacher A	Teacher B
HT1	Argand diagrams Series Proof	Roots of polynomials Volume of revolution Matrices & Linear Transformations Vectors
HT2	Complex numbers and De Moivre Polar coordinates Differential Equations	Further calculus and volumes of revolution Hyperbolics Momentum and impulse
HT3	Inequalities The T formulae Taylor series	Work, energy and power Collisions in one dimension Conic sections Vectors
HT4	Methods in calculus Elastic strings and springs Reducible differential equations Numerical methods	Elastic collisions in two dimensions
HT5	Revision	Revision
HT6	No lessons	No lessons