KS5 Curriculum Overview: **Double Maths (A-Level Mathematics and A-Level Further Mathematics)**



	Autumn Term	Spring Term	Summer Term
	Curriculum:	Curriculum:	Curriculum:
Year 12	Pure: Surds and Indices (AS), Trigonometry (AS), Quadratic functions (AS), Coordinate Geometry, Equations and Inequalities, Exponentials and Logarithms (AS), Polynomials, Binomial Expansion, Graphs and	Pure: Functions, Trigonometry(A2), Differentiation (A2), Integration (A2) Further Algebra, Mechanics: Force and Motion, Friction, Moments, Projectiles	Pure: Numerical methods, Parametric Equations, Differential Equations, Complex Numbers (AS) Mechanics: Kinematics (A2), Dimensional Analysis
	Transformations, Sequences and Series, Calculus, Proof		,
	Mechanics : Kinematics (AS), Vectors, Forces and Newton's Laws, Variable acceleration	Statistics: Probability, Probability Distributions, Hypothesis Testing	Statistics: Poisson Distribution Discrete: Graphs, Linear programming
	Statistics: Data collection, Data PPI, Probability, Binomial Distribution		Students now choose 2 FM applied options to continue studying. The choice is made from: Discrete, Mechanics, Statistics
	Formal Assessment*: Baseline assessment (First week of term) Progress check (First week after half-term)	Formal Assessment*: Y12 Mock Exams	Formal Assessment*: Y12 Mock Exams
Year 13	Curriculum:	Curriculum:	Curriculum:
	Pure: Matrices (AS), Further Algebra (AS), Proof, Calculus (AS), Polar Coordinates, Hyperbolic functions	Pure: Vectors, Calculus (A2), Complex Numbers (A2), First and Second Order Differential Equations, Matrices (A2), Numerical Methods	Revision and consolidation across the syllabus
	Mechanics: Momentum and Collisions, Work Energy and Power	Mechanics: Circular Motion, Centres of Mass and Moments	
	Statistics: DRVs, CRVS, Chi-Squared Distribution, Type I and Type II Errors	Statistics: Exponential Distribution, t-distribution, Confidence Intervals	
	Discrete: Networks, Network Flow, CPA	Discrete: Game Theory, Group Theory	
	Formal Assessment*: Progress Check (First week after half-term)	Formal Assessment*: Y13 Mock Exams	Formal Assessment*: AQA GCE A-level Mathematics AQA GCE A-level Further Mathematics

^{*}At CamSF, assessment happens at many levels and is perhaps most important when teachers assess what students have learned and remembered within the classroom. Timely feedback is so important in enabling progress and knowledge retention.