

St. Mary's College

Form 4

Additional Mathematics

Course Outline

2013-2015

TERM 1 Proposed date		Topic	Modules
Sept	1	Surds , Indices and Logarithms Inequalities	Perform operations involving surds Laws of indices Laws of logarithms Relationship between indices and logs Solve indices and log equations
October	2	Coordinate Geometry 1 Coordinate Geometry 2	Determine the gradient of line Determine whether lines are parallel. Perpendicular Find points of intersections The equation of a circle Determine centre of circle and radius Equations of tangents and normal to a circle Points of intersection between a straight line and curve
October- November	3	Quadratics 1	Completing the square Sketch quadratic maximum minimum Nature of roots Relationship between roots of a quadratics and the coefficients. Solve simultaneous eqns with a linear and quadratic .
November- December	4	Algebra	Perform operations on a polynomial Factorize polynomial less than and equal to degree 4 Remainder theorem Factor theorem

		REVISION	
		Discussion of SBA project	
TERM 2 Proposed date			
Jan- Feb	1	Functions	Define and use function notation Range of a function given domain Graph functions and their inverse
Feb-March	2	Differentiation	Gradient of a curve Derivative x^n Derivative of $\sin x$ and $\cos x$ Chain rule, product rule Rate of change Stationary points Second derivative Equations of tangents and normal to a curve
March- April	3	Basic Mathematical Applications Data Representation and Analysis 1	Types of data Representation of data diagrammatically Determine quartiles and percentiles Mean, mode, range, interquartile range
		REVISION	
		Discussion of SBA project	
TERM 3 May	1	Sequence and Series	Define sequence . series Arithmetic and geometric sequence Use of summation sign
May- June	2	Integration	Use notation for integration Rules of integration Definite and indefinite integration Applications of integration
June	3	Kinematics of Motion along a straight line	Displacement ad velocity time graphs Variable motion of a particle

		REVISION	
July		Distribution of SBA project	

Caribbean Examination Council

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Form 5

TERM 1		Topic	Module	
Sept	1	Trigonometry1	Radians to degrees Applications of length of arc and sector area Graph trigonometric functions	
October	2	Vectors	Two dimensional vectors Scalar and dot product of vectors Problems involving	
October- November	3	Trigonometry2	Compound angle Formulae Solving simple trigonometric equations	
November December		REVISION		
		submission of SBA projects		
TERM 2	1			
Jan	2	Inequalities	Rational inequalities with linear factors	
Jan -Feb	3	Basic Mathematical Applications Data Representation and Analysis 2	Probability theory	
		REVISION		
TERM 3 March - April		REVISION PAST EXAM PAPER PRACTICE QUESTIONS		

