YEARLY PROGRAM OUTLINE
GRADE 11 ADVANCED MATHEMATICS TERM 1 – 4 CONTENT DISTRIBUTION

TERM	STRAND	CONTENT STANDARDS (CODING)	UNITS	TOPICS	BENCH MARK (CODING)	NUMBER OF BENCH MARK PER TERM
1	**Numbers, Operations and Computation**	**11.1.1**	***Numeracy***	The real number system	11.1.1.1	**3**
				Surds		
				Recurring and Non-Recurring Decimals		
				Indices	11.1.1.2	
				Logarithm	11.1.1.3	
2	**Geometry, Measurements and Transformation**	**11.2.2**	***Measurement***	Conversion, Scales and dials	11.2.2.1	**14**
				Length, Mass and Capacity	11.2.2.2	
			Trigonometry	Application of Trigonometry	11.2.2.3	
					11.2.2.4	
					11.2.2.5	
				Three-Dimensional application of Trigonometry	11.2.2.6	
					11.2.2.7	
			Vectors	Definition and representation of vectors	11.2.2.8	
				Arithmetic operations on vectors	11.2.2.9	
				Velocity vectors	11.2.2.10	
			Geometry	Angles and Polygons	11.2.2.11	
				Geometric Proofs	11.2.2.12	
				Circle geometry	11.2.2.13	
					11.2.2.14	

3	**Patterns and Algebra**	**11.3.3**	***Factorization***	Factorization of Algebraic Expressions	11.3.3.1	**15**
					11.3.3.2	
				Algebraic Fractions	11.3.3.3	
					11.3.3.4	
			Equations and Inequalities	Quadratic Equations with (a) not equal 1	11.3.3.5	
				Solutions To Simultaneous Equations		
				Inequalities		
			Linear Functions	Gradient of straight line	11.3.3.6	
				Parallel and Perpendicular lines	11.3.3.7	
				Distance of a point from a line	11.3.3.8	
			Functions and Graphs	Relations and Functions	11.3.3.9	
				Domain and Range of a function	11.3.3.10	
				Absolute Value Functions	11.3.3.11	
				Linear, Quadratic and Exponential equations and Inequalities	11.3.3.12	
				Absolute Value Function		
				Sketches of hyperbolic, exponential, Logarithmic functions and Asymptotes	11.3.3.13	
				Circles on Cartesian Plane	11.3.3.14	
				Equation of Circles in Standard Form	11.3.3.15	
4	**Statistics and Probability**	**11.4.4**	***Data Analysis***	Collecting and Organizing Data	11.4.41	**8**
				Measure of Central Tendency	11.4.4.2	
				Measure of dispersion		
				Shape of distributions	11.4.4.3	
			Sets and Probability	Sets and Elements	11.4.4.4	
				Subsets and Venn Diagrams	11.4.4.5	
				Universal and complimentary sets	11.4.4.6	

				Theoretical and Experimental Probabilities	11.4.4.7	
				Mutually and non-mutually exclusive events		
				Independent and dependent Events and Conditional Probability	11.4.4.8	