

**Suggested teaching order for
MAA SL**

Topics

Topic 1: Number and Algebra	(1.1-1.7)
Topic 2: Functions	(2.1-2.10)
Topic 3: Geometry and Trigonometry	(3.1-3.7)
Topic 5: Statistics and Probability	(4.1-4.11)
Topic 5: Calculus	(5.1-5.11)

Plan

Year 1	Year 2
60% of the syllabus	40% of the syllabus

YEAR 1	
Topic 1	Number and Algebra
1.1	Numbers – rounding – scientific form
1.2	Methods of proof
1.3	Sequences in general - Series
1.4	Arithmetic sequences
1.5	Geometric sequences
1.6	Applications of G.S. – Percentage growth)
1.7	The Binomial Theorem – $(a+b)^n$

Topic 2	Functions
2.1	Lines (or Linear functions)
2.2	Quadratics (or Quadratic functions)
2.3	Functions, domain, range, graph
2.4	Composition of functions: $f \circ g$
2.5	The inverse function: f^{-1}
2.6	Transformations of functions
2.7	Asymptotes
2.8	Exponents – the exponential function a^x
2.9	Logarithms – the logarithmic function $\log_a x$
2.10	Exponential Equations

Topic 3	Geometry and Trigonometry
3.1	3D Geometry
3.2	Triangles – Sine and Cosine rules
3.3	Applications in 3D Geometry – Navigation
3.4	The trigonometric circle – Arcs and Sectors
3.5	$\sin\theta$, $\cos\theta$, $\tan\theta$ on the unit circle
3.6	Trigonometric identities and equations
3.7	Trigonometric functions

Topic 5	Calculus (part of differentiation)
5.1	The limit $\lim f(x)$ – The derivative $f'(x)$: A rough idea!
5.2	Derivatives of known functions – Rules
5.3	Tangent line – Normal line at some point x_0
5.4	The chain rule

YEAR 2	
Topic 5	Calculus (part of differentiation - integration)
5.5	Monotony – max, min
5.6	Concavity – points of inflection
5.7	Optimisation
5.8	The indefinite integral
5.9	Integration by substitution
5.10	The definite integral - Areas between curves
5.11	Kinematics (displacement, velocity, acceleration)

Topic 4	Statistics and Probability
4.1	Basic concepts of Statistics
4.2	Measures of central tendency – Measures of spread
4.3	Frequency tables – Grouped Data
4.4	Regression
4.5	Elementary Set Theory
4.6	Probability
4.7	Conditional probability – Independent events
4.8	Tree diagrams
4.9	Distributions – Discrete random variables
4.10	Binomial distribution – $B(n,p)$
4.11	Normal distribution – $N(\mu,\sigma)$

Alternative scenario
swap between

YEAR 1	YEAR 2
Topic 4 (Statistics)	Topic 5 (part of Calculus)
4.1	5.1
4.2	5.2
4.3	5.3
4.4	5.4

Sequence for year 2: 5.1-5.7, then 4.5-4.11