Suggested teaching order for

MAA HL

Topics

Topic 1: Number and Algebra	(1.1-1.14)
Topic 2: Functions	(2.1-2.16)
Topic 3: Geometry and Trigonometry	(3.1-3.18)
Topic 5: Statistics and Probability	(4.1-4.13)
Topic 5: Calculus	(5.1-5.20)

(paragraphs are according to my lecture notes)

Plan

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

YEAR 1

Topic 1	Number and Algebra (part of the topic)
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 – $(a+b)^n$
1.8	Mathematical induction

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: fog
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
At this point a quick introduction to complex numbers (only the Cartesian part) as well as a reference to the fundamental theorem of algebra is needed. **See paragraphs 1.10-1.11 from Topic 1**. A full treatment of complex numbers will take place in year 2.	
2.11	Polynomial functions
2.12	Sum and Product of roots
2.13	Rational functions – Partial fractions
2.14	Polynomial and rational inequalities
2.15	Symmetries of f(x) – More transformations
2.16	Modulus equations and inequalities

Topic 3	Trigonometry (part of the topic)
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
3.8	More trigonometric equations – identities
3.9	Inverse trigonometric functions

Topic 5	Calculus (part of the topic)
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_o
5.4	The chain rule
5.5	Monotony – max, min
5.6	Concavity – points of inflection
5.7	Optimisation
5.14	Implicit differentiation (without kinematics)
5.15	Rate of change problems
5.8	The indefinite integral
5.9	Integration by substitution
5.16	Further integration by substitution
5.17	Integration by parts
5.10	The definite integral - Areas between curves
5.18	Further areas between curves - Volumes

YEAR 2

Topic 5	Calculus (part of the topic)
5.12	Continuity and differentiability
5.13	L'Hôpital's rule
5.11	Kinematics (+last paragraph of 5.14)
5.19	Differential equations
5.20	Maclaurin series – Extension of Binomial Theorem

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 – $N(\mu,\sigma)$
4.12	Continuous random variables
4.13	Counting – Permutations – Combinations

Topic 1	Number and Algebra (part of the topic)
1.9	Systems of linear equations

Topic 3	Vectors (part of the topic)
3.10	Vectors: Geometric representation
3.11	Vectors: Algebraic representation
3.12	Scalar (or Dot) product – angle between vectors
3.13	Vector equation of a line in 2D
3.14	Vector equation of a line in 3D
3.15	Vector (or Cross) product
3.16	Planes
3.17	Intersections among lines and planes
3.18	Distances

Topic 1	Number and Algebra (part of the topic)
1.10	Complex numbers – basic operations
1.11	Polynomials over the Complex field
1.12	The complex plane
1.13	De Moivre's theorem
1.14	Roots of $z^n=a$