

MA10103: Foundation Mathematics I

OUTLINE OF TOPICS

[BC] denotes the recommended text: L. Bostock and S. Chandler, “*Core Maths for Advanced Level*” (Nelson Thornes, 3rd ed.)

Topic	Ref. [BC]
1. Integers, rationals, reals	
2. Basic algebra: linear and quadratic expressions	§1
3. Factorisation, partial fractions	§3, §30
4. Surds, indices and logarithms	§2
5. Solving equations: factorisation, completing square, simultaneous equations	§3, §4
6. Trigonometry, sine and cosine rule.	§7, §10, §15, §16, §22
7. Coordinate geometry	§6, §8, §28
8. Functions	§11, §18
9. Differentiation and applications	§13, §14, §17, §21, §24
10. Binomial Theorem	§1, §34