VCE Mathematical Methods

Mathematical Methods allows students to develop their knowledge of functions, graphs, rates of change, calculus, probability and statistics. Mathematical Methods is an ideal choice for students who have a strong background in Mathematics.

Unit 1 & 2	Unit 3 & 4
In Unit 1 & 2 you will: • Explore linear equations and coordinate geometry • Investigate quadratic functions and their transformations • Investigate cubic and quartic functions both graphically and algebraically • Graph exponential and logarithm functions and further develop knowledge of the index and log laws • Learn about the symmetry of sine & cosine functions through graphing and solving algebraically • Use differentiation and anti-differentiation • Investigate probability and combinatorics	In Unit 3 & 4 you will: • Investigate graphs of linear, quadratic, cubic, quartic, hyperbola, truncus, square root, rational power, logarithmic, exponential, sine, cosine and tangent functions • Explore transformations of above functions both graphically and algebraically • Use Calculus to look at rates of changes of these functions and analyse the change affect • Learn integral calculus to find the area under curves of these functions • Work out statistics and probabilities and analyse the outcomes of events

To be successful in Mathematical Methods, you need to be confident with mental arithmetic, times tables, fractions and algebra skills like simplifying, factorising and transforming.

Types of assessment	Class Activities
• Problem solving and modelling tasks • Mathematical investigation • Tests • Examinations	• Make inferences from analysis and use these to draw valid conclusions related to a given context • Develop mathematical formulations of specific and general cases

Careers that may link to this subject area

Accountant	Air Traffic Controller	Architect	Biochemist
Computer Scientist	Dentist	Industrial Designer	Engineer
Medical Practitioner	Pharmacist	Radiologist	Tax Agent
Surveyor