General Mathematics

General Senior Subject

General

School Code	MAG		
Year Level	11 & 12	**QCE Credits**	4
Subject Type	General Subject	**VET Contribution**	N/A
Recommended Academic Performance	Foundational General Mathematics – C Standard		
21st Century Skills			

General Mathematics' major domains are Number and algebra, Measurement and geometry, Statistics, and Networks and matrices, building on the content of the P–10 Australian Curriculum.

General Mathematics is designed for students who want to extend their mathematical skills beyond Year 10 but whose future studies or employment pathways do not require calculus.

Students build on and develop key mathematical ideas, including rates and percentages, concepts from financial mathematics, linear and non-linear expressions, sequences, the use of matrices and networks to model and solve authentic problems, the use of trigonometry to find solutions to practical problems, and the exploration of real-world phenomena in statistics.

Students engage in a practical approach that equips learners for their needs as future citizens. They learn to ask appropriate questions, map out pathways, reason about complex solutions, set up models and communicate in different forms. They experience the relevance of mathematics to their daily lives, communities and cultural backgrounds. They develop the ability to understand, analyse and take action regarding social issues in their world.

Pathways:

A course of study in General Mathematics can establish a basis for further education and employment in the fields of business, commerce, education, finance, IT, social science and the arts.

Objectives:

By the conclusion of the course of study, students will:

- select, recall and use facts, rules, definitions and procedures drawn from Number and algebra, Measurement and geometry, Statistics, and Networks and matrices
- comprehend mathematical concepts and techniques drawn from Number and algebra, Measurement and geometry, Statistics, and Networks and matrices
- communicate using mathematical, statistical and everyday language and conventions
- evaluate the reasonableness of solutions
- justify procedures and decisions by explaining mathematical reasoning
- solve problems by applying mathematical concepts and techniques drawn from Number and algebra, Measurement and geometry, Statistics, and Networks and matrices.

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Structure:

Unit 1	Unit 2	Unit 3	Unit 4
Money, measurement and relations • Consumer arithmetic • Shape and measurement • Linear equations and their graphs	**Applied trigonometry, algebra, matrices and univariate data** • Applications of trigonometry • Algebra and matrices • Univariate data analysis	**Bivariate data, sequences and change, and Earth geometry** • Bivariate data analysis • Time series analysis • Growth and decay in sequences	**Investing and networking** • Loans, investments and annuities • Graphs and networks • Networks and decision mathematics

Assessment:

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete four summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments:

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Problem-solving and modelling task	20%	Summative internal assessment 3 (IA3): • Examination	15%
Summative internal assessment 2 (IA2): • Examination	15%		
Summative external assessment (EA): 50% • Examination			

Cost:

Students participating in this subject need a scientific calculator.

It is expected that students studying this subject participate in BYOD. Please see page 155 for further information and device specifications.