

Recommendation

A Sound Achievement (C) in Year 10 Mathematics.

Rationale

The major domains of mathematics in General Mathematics are Number and algebra, Measurement and geometry, Statistics and Networks and matrices, building on the content of the P–10 Australian Curriculum. Learning reinforces prior knowledge and further develops 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.

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. It incorporates a practical approach that equips learners for their needs as future citizens. Students will learn to ask appropriate questions, map out pathways, reason about complex solutions, set up models and communicate in different forms. They will experience the relevance of mathematics to their daily lives, communities and cultural backgrounds. They will develop the ability to understand, analyse and take action regarding social issues in their world. When students gain skill and self-assurance, when they understand the content and when they evaluate their success by using and transferring their knowledge, they develop a mathematical mindset.

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:

- recall mathematical knowledge
- use mathematical knowledge
- communicate mathematical knowledge
- evaluate the reasonableness of solutions
- justify procedures and decisions
- solve mathematical problems.

Delivery (mode, time requirements, lessons)

Students are expected to undertake independent study to complete tasks and assessment in accordance with the Work Rate Calendar. Students also have access to live sessions each week. Course materials can be accessed in the learning management system.

Student requirements

- Computer, access to email, scanner and internet, telephone and USB headset with microphone, exercise book, a protractor and a drawing compass.
- Scientific Calculator (preferably Casio)
- Parallel rule optional.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Money, measurement, algebra and linear equations <ul style="list-style-type: none"> • Consumer arithmetic • Shape and measurement • Similarity and scale • Algebra • Linear equations and their graphs 	Applications of linear equations and trigonometry, matrices and univariate data analysis <ul style="list-style-type: none"> • Applications of linear equations and their graphs • Applications of trigonometry • Matrices • Univariate data analysis 1 • Univariate data analysis 2 	Bivariate data and time series analysis, sequences and Earth geometry <ul style="list-style-type: none"> • Bivariate data analysis 1 • Bivariate data analysis 2 • Time series analysis • Growth and decay in sequences • Earth geometry and time zones 	Investing and networking <ul style="list-style-type: none"> • Loans, investments and annuities 1 • Loans, investments and annuities 2 • Graphs and networks • Networks and decision mathematics 1 • Networks and decision mathematics 2

Assessment

Formative assessment

Unit 1		Unit 2	
Examination		Examination	
Problem Solving and Modelling Task		Examination	
An average of C or higher for both pieces of assessment for QCE credit	1 credit	An average of C or higher for both pieces of assessment for QCE credit	1 credit

Summative assessment

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

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).

Disclaimer All of the above information is accurate at the time of publication