
CERTIFICATE IV IN ADULT TERTIARY PREPARATION (10397NAT)

FOUR WEEK INTENSIVE CLASSES - 19 NOVEMBER TO 14 DECEMBER

GENERAL MATHEMATICS (MATHEMATICS A) SPECIALISATION

The General Mathematics Specialisation applies to those who require foundation mathematics knowledge and skills to apply in real world applications. This specialisation will teach students to use mathematical knowledge and solve mathematical problems in real world applications or when encountering mathematical problems at work or in a non-mathematically based tertiary course.

There are two units of study within the General Mathematics Specialisation.

In Unit 1: ATPGMA401A students will learn to use mathematical knowledge, skills and techniques including basic algebra and trigonometry. Knowledge to be gained in this unit:

The order of mathematical operations

Number systems

Rational and irrational numbers

Percentage and ratios

Rounding decimal numbers

Indices

Scientific Notation

Metric conversions

Transposing and evaluating formulae

Problem solving processes and models

Linear graphs

Simple algebraic relationships

Similar Triangles

Trigonometry ratios

Pythagoras' Theorem

The Performance Criteria for ATPGMA401A describes the required performance needed to demonstrate achievement of the element:

1. Develop solutions to mathematical problems in real world applications	1.1 Select and apply relevant mathematical knowledge and mathematical procedures to mathematical problems in real world applications. 1.2 Apply the problem solving process to calculate solutions to mathematical problems. 1.3 Use technology to assist in the development of solutions.
2. Communicate mathematical ideas, information and problems	2.1 Use mathematical language conventions and technology appropriate to the audience and purpose to communicate ideas, information and problems which relate to real world mathematical applications. 2.2 Sequence ideas and information logically appropriate to the communication of mathematical ideas, information and problems.

In Unit 2: ATPGMA402A students will learn to apply the knowledge and skills of financial mathematics, probability and statistics. Knowledge to be gained in this unit:

Mechanics/mathematics of currency exchange

Inflation – what influences inflation rates and changes, and the impact of inflation nationally and individually

The principles, rules and rates of Income Tax

The principles of buying and selling in financial transactions

The principles of hire purchase and personal loans

Depreciation – typical applications and rates of depreciation

Simple Interest/compound interest – the principles and typical applications

The principles of Basic probability, Binomial probability and Normal Distribution

The applications of central tendency and measures of dispersion

The Performance Criteria for ATPGMA402A describes the required performance needed to demonstrate achievement of the element:

1. Develop solutions to real world mathematical problems relating to finances, probability and statistics	1.1 Identify and select the <i>mathematical knowledge</i> and <i>mathematical procedures</i> relevant to the real world problem 1.2 Develop a solution to the problem, applying the <i>problem solving process</i> , the correct formula and calculations. 1.3 Use <i>technology</i> to assist in the development of solutions to real world problems relating to financial mathematics probability and statistics.
2. Communicate ideas, information and problems relating to financial mathematics, statistics and probability	2.1 Use <i>mathematical language conventions</i> and <i>technology</i> appropriate to the audience and purpose to convey ideas, information and problems relating to financial mathematics, statistics and probability. 2.2 Sequence ideas and information logically appropriate to the communication of mathematical ideas, information and problems.

November Intensive General Mathematics Timetable - 2018

Mon	Tue	Wed	Thu	Fri	Sat
19 Nov 2.00pm – 6.30pm	20 Nov 2.00pm – 6.30pm	21 Nov 2.00pm – 6.30pm	22 Nov 2.00pm – 6.30pm	23 Nov 2.00pm – 6.30pm	24 Nov
26 Nov 2.00pm – 6.30pm	27 Nov 2.00pm – 6.30pm	28 Nov 2.00pm – 6.30pm	29 Nov 2.00pm – 6.30pm	30 Nov 2.00pm – 6.30pm	1 Dec
3 Dec 2.00pm – 6.30pm	4 Dec 2.00pm – 6.30pm	5 Dec 2.00pm – 6.30pm	6 Dec 2.00pm – 6.30pm	7 Dec 2.00pm – 6.30pm	8 Dec
10 Dec 2.00pm – 6.30pm	11 Dec 2.00pm – 6.30pm	12 Dec 2.00pm – 6.30pm	13 Dec 2.00pm – 6.30pm	14 Dec 2.00pm – 6.30pm	