

## VCE General Maths Units 1 and 2

### OVERVIEW

This is a medium level maths designed for those students planning to go on to Further Maths in Year 12.

Students will start to develop intermediate to advanced mathematical skills and be competent in using logical thought, formulating problems in a way which allows for computation and decision, make deductions from assumption and be able to apply advanced concepts.

Areas of Study are inclusive of Financial Arithmetic, Statistics, Graphs of Linear relations, Geometry and Trigonometry.

Students complete a Headstart program of study in Statistics and Linear graphs during the summer holidays to give them a solid foundation in these mathematical skills and a practice SAC so as to prepare them for their first assessment SAC which are in the form of topic tests.

The units have been designed to enable students to develop knowledge and skills which will enable them to apply them to practical problem solving.(CAS) technology to support and develop the learning of mathematics)

### AREAS OF STUDY

#### Unit 1

1. Data analysis. - Bivariate and Univariate data
2. Algebra. - Linear and non-linear relations and equations.
3. Graphs of linear and non-linear relations. - Sketching and interpretation of linear and non-linear graphs

#### Unit 2

1. Arithmetic - Sequences and series
2. Business mathematics. - Financial arithmetic
3. Geometry and trigonometry. - Geometric and trigonometric terms, properties, relationships and theorems.
4. Data Analysis - Bivariate Data (Extension)

#### Skills:

- Use of technology to solve problems -via CAS calculators
- Analytical, research and problem solving
- Investigation and modelling

At the end of the course students will achieve a credit in units 1 and 2 VCE General Maths and the mathematical skills and knowledge required for VCE Further Mathematics units 3 and 4 at NCAT.

At NCAT small class sizes allow for more student assistance from the teacher. The use of CAS calculator technology is incorporated in all areas of study, and students also have the use of the wireless navigator system, which is an

interactive blended learning system for the use of CAS calculators. This facilitates a high degree of teacher/student interaction and further enhances learning.

#### ASSESSMENT

Unit 1 and 2 semester exams.

SACS. Formal test for each area of study.

Students are also assessed on assignments, summary book notes and the use of CAS calculator technology.

#### SUBJECT PREREQUISITES

A satisfactory pass in year 10 Maths.