

VCE Further Mathematics Units 3 and 4.

OVERVIEW

Further Mathematics consists of a compulsory core area of study 'Data analysis' and three modules in the 'Applications' area of study.

This subject gives students mathematical skills and knowledge required for many post-secondary and tertiary courses.

Students complete a Headstart program during the summer holidays; this gives students the opportunity to start the year with some course work already completed and more time for revision for the final formal VCE exams.

Unit 3 comprises the 'Data analysis' area of study statistical application and Module 1: Number patterns.

Data Analysis covers the presentation, summary, description and analysis of univariate and bivariate sample data. Module 1: Number patterns, covers arithmetic and geometric sequences, difference equations, fibonacci and related sequences and the solution of related equations numerically or graphically

Unit 4 comprises of 2 modules, Module 4: Business-related mathematics and Module 2: Geometry and trigonometry.

Module 2: Geometry and trigonometry covers the application of geometric and trigonometric knowledge and techniques to various two-dimensional and three-dimensional practical spatial problems.

Module 4: Business-related mathematics covers the application of numerical computations and graphical techniques to the formulation and solution of various problems in business and financial contexts, including the solution of related equations.

CAS calculator technology is incorporated in all areas of study, and the interactive use of the wireless navigator system.

Skills:

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

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.

At the end of the course students will achieve a credit in units 3 and 4 VCE Further Mathematics.

Small class sizes that allows 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

The student's level of achievement in Units 3 and 4 will be determined by school-assessed coursework for each of the three modules and Data Analysis (Core), and two end-of-year formal VCE examinations.

SUBJECT PREREQUISITES

A satisfactory completion of VCE General Mathematics Units 1 and 2. Units 3 and 4 Further Mathematics assumes knowledge and skills from General Mathematic Units 1 and 2.

The skills and knowledge required for the data analysis and the three modules studied in Further Mathematics are completed in General Maths at NCAT. It is recommended for new students, to complete the required areas of study.