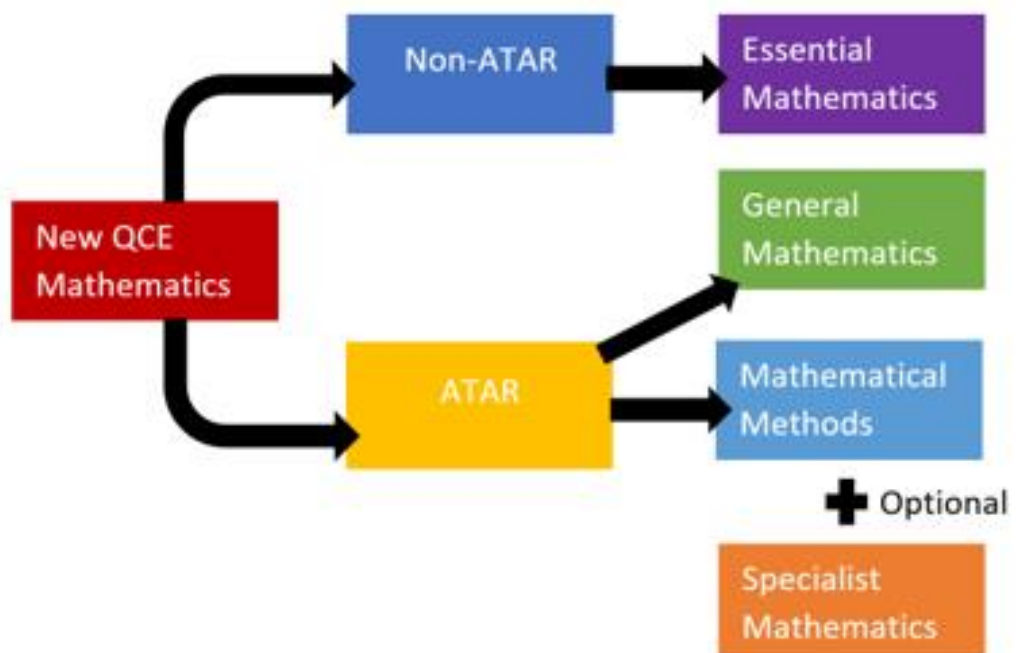




# **Southern Cross Catholic College**

## **Subject Selection Evening**

### **Mathematics**



# General Senior Mathematics

## General Mathematics

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.

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.

Students need to be comfortable with simple algebra.

## Units of Study

### General

Money, measurement and relations

Applied trigonometry, algebra, matrices and univariate data

Bivariate data, sequences and change, and Earth geometry

Investing and networking

## Mathematical Methods

Mathematical Methods enables students to see the connections between mathematics and other areas of the curriculum and apply their mathematical skills to real-world problems, becoming critical thinkers, innovators and problem-solvers.

A course of study in Mathematical Methods can establish a basis for further education and employment in the fields of natural and physical sciences, mathematics and science education, medical and health sciences, engineering, computer science, psychology and business.

Minimum B- in 10 Mathematical Methods recommended.

### Methods

Algebra, statistics and functions

Calculus and further functions (Logarithms and Differentiation)

Further calculus (Integration)

Further functions and statistics

## Specialist Mathematics

Specialist Mathematics is designed for students who are confident in their mathematical knowledge and ability. They will gain an appreciation of the true nature of mathematics, its beauty and its power.

Specialist Mathematics is studied in conjunction with Mathematical Methods.

Pathways include education and employment in the fields of science, mathematics and statistics, computer science, medicine, engineering, finance and economics.

Minimum B+ in 10 Mathematical Methods recommended.

### Specialist

Combinatorics, vectors and proof

Complex numbers, trigonometry, functions and matrices

Mathematical induction, matrices and complex numbers

Statistical and calculus inference



# Essential Mathematics

Essential Mathematics benefits students who wish to consolidate core mathematical skills in preparation for everyday mathematics.

Students learn to recognise definitions, rules and facts from everyday mathematics and data, and to calculate using appropriate mathematical processes.

A course of study in Essential Mathematics can establish a basis for employment in the fields of trade, industry, business and community services. Students learn within a practical context.

Students who complete this course of study with a grade of C or better will demonstrate numeracy competencies equivalent to the Australian Core Skills Framework (ACSF) Level 3, with some potential for demonstrating Level 4. This is a key quality measure for the Australian Government's Skills for Education and Employment Programme.

## Units of Study

Number, data and graphs

Money, travel and data

Measurement, scales and data

Graphs, chance and loans

