
YEAR 10 SUBJECTS

Mathematics is composed of multiple but interrelated and interdependent concepts and systems which students apply beyond the mathematics classroom.

The Mathematics curriculum at the College provides students with carefully paced, in-depth study of critical skills and concepts. It encourages students to become self-motivated, confident learners through inquiry and active participation in challenging and engaging experiences.

Mathematics – 10 Mathematics 1 and 2

The study of Mathematics 1 and 2 will assist you to think critically and act logically to evaluate situations, solve problems and make decisions, identify patterns and form generalisations, use technology and effectively communicate ideas and information.

In this study, you will practice mathematical algorithms, routines and techniques and use them to solve standard problems and apply mathematical knowledge and skills in unfamiliar situations which require investigative, modelling or problem-solving approaches. This will be complemented with skill development in the use of CAS calculators. You will develop knowledge in the areas of algebra and equations, linear functions and graphing, number and financial arithmetic, statistics, networks and matrices. Technology to support the learning of mathematics will be incorporated throughout the course in the use of CAS calculators. Topics covered include Algebra and Equations, Linear Functions, Networks, Matrices and Data Analysis.

This study is suitable for students who wish to continue into Year 11 General Mathematics with the possibility of continuing to Year 12 Further Mathematics.

Outcomes

For each semester, the student is required to demonstrate achievement of three outcomes. For each semester, the outcomes apply to the content from the areas of study selected for that semester. On completion of this semester:

- Students should be able to define and explain key concepts as specified in the selected content from the topics studied, and apply a range of related mathematical routines and procedures.
- Students should be able to select and apply mathematical facts, concepts, models and techniques from the topics covered in the semester to investigate and analyse extended application problems in a range of contexts.
- Students should be able to select and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

Assessment

All assessments are school-based.

Demonstration of achievement of Outcomes 1, 2 and 3 will be based on the student's performance on a selection of the following assessment tasks:

- Tests
- Application/Problem Solving Tasks
- End of semester Examinations