



Advanced Mathematics

Description

Students who have been recommended by their Year 9 Mathematics teacher may elect to do this course. This course is highly recommended for students who intend to undertake VCE Mathematical Methods Units 1 and 2, students can also select to progress onto any of the other VCE Mathematics courses from this subject. This course provides access to the broadest range of mathematical programs in VCE. (Note: CAS calculator required for this course)

Unit Topics

Units studied will include topics chosen from the following:

- *Change and probability*
- *Geometry and measurement*
- *Linear graphs and modelling*
- *Irrational numbers*
- *Trigonometry and graphs*
- *Polynomials and their graphs*
- *Introductory Calculus*
- *Expansion and factorisation of polynomials*
- *Data analysis*
- *Problem solving*
- *Use of technology where necessary and appropriate*

Skill Development

Emphasis on further development of skills in algebra and graphing, measurement and geometry, probability and statistics. Tasks undertaken will help students develop critical thinking, investigative and problem solving skills.

Possible Assessment Tasks (CAS calculator required)

Possible assessment tasks could include; assignments, tests, solutions to worked questions, summary/review notes, modelling tasks, problem-solving tasks and mathematical investigations. These may involve the appropriate use of technology (Calculator &/or Excel).

Career Options

Advanced Mathematics is highly recommended for students considering future studies in mathematics, Engineering, Sciences, Information Technology, Economics and Commerce, Law and Medicine related courses.