

Subject name	Mathematical Methods
Subject code	TMM (General subject)
Additional Subject fee	Nil
Prerequisites	Minimum B Maths

Course Overview

In doing this one semester subject students will have the opportunity to:

- Develop the knowledge and skills fundamental to Mathematical Methods.
- Experience the styles of assessment they will encounter in Mathematical Methods.
- Become familiar with the use of mathematics specific ICTs, such as graphic calculators and computer software as learning aids.

Course Outline

Most topics involve introducing students to a range of different types of mathematical functions both in algebraic and graph form. Then students look at how these functions can be applied in, and used to model real life situations. The course content is an introduction to some of the topics students will encounter in Unit 1 and Unit 2 of the Senior Maths Methods course. Learning experiences will often involve the use of graphic calculators or computer software/ internet to assist students to formulate and display mathematical concepts and models. A majority of these topics will have an underlying emphasis on the use of algebra. Developing a good understanding of algebraic concepts is very important for success in Mathematical Methods.

Assessment

The assessment in this subject will be modelled on the style of assessment done in senior Mathematical Methods. There will be an exam at the end of semester, and a Problem Solving and Modelling Task during the semester. Other formative assessment may be completed to check for understanding throughout the semester.

Subject Requirements

Students will need to have a scientific calculator. The school sells the Ti-30XB scientific calculator (approximately \$25 at the Textbook Office) because its layout is similar to the Ti-84+ Graphic Calculators students will be using in senior mathematics. Access to the internet at home is also desirable.

Career Opportunities

Mathematical Methods is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, or highly technical vocational education or work. Mathematical Methods can provide the mathematical basis for further education and employment in fields like:

- Natural and physical sciences – especially Physics and Chemistry
- Computer science – including Electronics and Software design, Psychology and Business
- Medical and health sciences – including Human Biology, Biomedical Science, Nanoscience and Forensics
- Engineering – including Chemical, Civil, Electrical and Mechanical Engineering, Avionics, Communications and Mining
- Mathematics and science education