

Mathematical Methods:

Unit 1:

The areas of study for Unit 1 are 'Functions and graphs', 'Algebra', 'Rates of change and calculus' and 'Probability'.

Students are expected to be able to apply techniques, routines and processes involving arithmetic, algebraic manipulation, equation solving, graph sketching, differentiation and integration with and without the use of technology, as applicable. Students should have facility with relevant mental and by hand approaches in simple cases.

The appropriate use of technology to support and develop the teaching and learning of mathematics is to be incorporated throughout the unit. Students are encouraged to use graphics calculators, spreadsheets, statistical software as applicable across the areas of study, both in the learning of new material and the application of this material in a variety of different contexts.

Unit 2:

The areas of study for Unit 2 are 'Functions and graphs', 'Algebra', 'Rates of change and calculus', and 'Probability'. Students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, algebraic manipulation, equation solving, graph sketching, differentiation and integration with and without the use of technology, as applicable. Students should be familiar with relevant mental and by hand approaches in simple cases.

The appropriate use of technology to support and develop the teaching and learning of mathematics, and in related assessments, is to be incorporated throughout the unit. Students are encouraged to use graphics calculators, spreadsheets, statistical software as applicable across the areas of study both in the learning of new material and the application of this material in a variety of different contexts.

Mathematical Methods:

Units 3 and 4:

Mathematical Methods consists of basically 3 main areas of study – Functions, Calculus and Probability. Students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, algebraic manipulation, equation solving, graph sketching, differentiation and integration with and without the use of technology, as applicable. Students should be familiar with relevant mental and by hand approaches in simple cases.

The appropriate use of technology to support and develop the teaching and learning of mathematics, and in related assessments, is to be incorporated throughout the units. This will include the use of some of the following technologies for various areas of study or topics: graphics calculators, spreadsheets, graphing packages, statistical analysis systems, and computer algebra systems. Students are encouraged to use graphics calculators, spreadsheets, statistical software, graphing packages or computer algebra systems as applicable across the areas of study.

School based assessment consists of 2 one hour tests (10% each) and an assignment (40%) in Semester 1. In Semester 2 there are two assessments worth 20% each. In total school based assessment is 1/3 of the overall result. At the end of the year there are two exams. The first of 1 hour duration is without calculators. The second of 2 hours duration allows calculators to be used and reference materials. *Please see the Mathematics staff for further details.*