

Subject name	Mathematics
Subject code	MAT
User pays fee	Ti-30XB Multiview Scientific Calculator approximately \$25 from the Textbook office.
Prerequisites	A basic understanding of number, place value, and quick automatic mental recall of basic addition/subtraction and multiplication/division processes. For example, students need to know their times tables up to 10 x 10 well and at speed.
Course overview	In line with the Australian Curriculum, the Year 7 and 8 Mathematics program focuses on developing each student’s numeracy skills with a strong emphasis on number sense and utilising both written and mental techniques when working with numbers, whilst also developing spatial awareness, a sense of chance, and how data can be collected and represented. The subject offers students opportunities to develop understanding and fluency of many fundamental mathematical concepts, and learn to problem solve and express their reasoning in a mathematical context.

Course outline

Year 7	Year 8
<ul style="list-style-type: none"> - Fractions, decimals, and percentages, negative numbers, index notation, ratios, square numbers and square roots - Angle relationships, transformations of shapes in a plane - Area of rectangles, triangles, parallelograms, and volume of rectangular and triangular prisms - Evaluating algebraic expressions, plot co-ordinates to determine relationships - Solve simple linear equations and word problems - Probability of single-step events, and determine probabilities from simple chance experiments - Conduct statistical investigations, analyse distributions and summary statistics, identify possible outliers 	<ul style="list-style-type: none"> - Integers, rational and irrational numbers, Index laws, ratios and rates, 24-hour time - Fractions, decimals and percentages, percentage increase/decrease - Probability using a variety of diagrams and tables for different combinations of events - Expand and factorise algebraic expressions, graph and solve linear equations - Perimeter and area of two-sided polygon shapes and circles, and volume of prisms - Collect, organise, display, and analyse data - Revise angle properties, congruent and similar shapes, and properties of congruency and similarity - Locate and describe position in 3-D

Assessment Students will complete one in-class test and one project (assignment-like) task each semester as the major part of the formal assessment in this subject.

Subject requirements Ti-30XB Multiview Scientific Calculator