Year 11 Mathematics Standard / Year 12 Mathematics Standard 1

2 units Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course

Prerequisites: The Mathematics Standard 1 Year 11 course has been developed on the assumption that students have studied the content and achieved the outcomes of the NSW *Mathematics Years 7–10 Syllabus*. In particular, the content and outcomes of all substrands of Stage 5.1 and the following substrands of Stage 5.2: Area and surface area, Equations, Financial mathematics, Linear relationships, Non-linear relationships, Probability, Right-angled triangles (Trigonometry), Single variable data analysis, Volume.

Exclusions: Students may **not** study any other Stage 6 mathematics Year 11 course in conjunction with the Mathematics Standard Year 11 course, or any other Stage 6 mathematics Year 12 course in conjunction with the Mathematics Standard 1 Year 12 course.

Course Description:

The Mathematics Standard Year 11 course is a common course for all students studying the Mathematics Standard syllabus. In Year 12 students can elect to study either the Mathematics Standard 1 Year 12 course (Category B) or the Mathematics Standard 2 Year 12 course (Category A).

Students studying the Mathematics Standard 1 course may elect to undertake an optional HSC examination.

To be eligible for an ATAR, students studying the Mathematics Standard 1 course must undertake a pattern of study to satisfy the ATAR requirements and complete the optional HSC examination. For the purposes of calculating the ATAR, no more than 2 units from Category B courses can be included.

All students studying the Mathematics Standard course in Stage 6 will have the opportunity to enhance their numeracy skills and capabilities. The content of the course aligns with Level 3 of the Australian Core Skills Framework.

The study of Mathematics Standard 1 in Stage 6:

- enables students to develop their knowledge, understanding and skills in working mathematically and in communicating concisely and precisely
- provides opportunities for students to consider various applications of mathematics in a broad range of contemporary contexts through the use of mathematical modelling and use these models to solve problems related to their present and future needs
- provides an appropriate mathematical background for students entering the workforce and/or undertaking further community and workplace training.

Main Topics Covered:

Year 11 Mathematics Standard Course Content

Topic: Algebra	Formulae and Equations
	Linear Relationships
Topic: Measurement	Applications of Measurement
	Working with Time
Topic: Financial Mathematics	Money Matters
Topic: Statistical Analysis	Data Analysis
	Relative Frequency and Probability

Year 12 Mathematics Standard 2 Course Content

Topic: Algebra	Types of Relationships
Topic: Measurement	Non-right-angled Triangles
	Rates
	Scale Drawings
Topic: Financial Mathematics	Investments
	Depreciation and Loans
Topic: Statistical Analysis	Further Statistical Analysis
Topic: Networks	Network and Paths

Assessment:

The Year 11 course is presumed knowledge and marks submitted to NESA may contain internal assessment on this knowledge