

## Mathematics Methods ATAR

<b>Year 11 Course Code</b>	AEMAM
<b>Year 12 Course Code</b>	ATMAM
<b>Pre-requisite</b>	<b>Year 11:</b> OLN A Category 3 Band 8 or above in NAPLAN A or B grade in Year 10A course <b>Recommendation by Head of Learning Area</b>
	<b>Year 12:</b> An A, B or high C grade in Year 11
<b>Cost</b>	\$60.00 (cost is approximate – subject to change)

### Year 11 and Year 12 Course Overview

The Mathematics Methods course focuses on the use of calculus and statistical analysis. The study of calculus provides a basis for understanding rates of change in the physical world, and includes the use of functions, their derivatives and integrals, in modelling physical processes. The study of statistics develops students' ability to describe and analyse phenomena that involve uncertainty and variation.

Mathematics Methods provides a foundation for further studies in disciplines in which mathematics and statistics have important roles. It is also advantageous for further studies in the health and social sciences. In summary, this course is designed for students whose future pathways may involve mathematics and statistics and their applications in a range of disciplines at the tertiary level.

### Year 11 Course Structure

Unit 1:

- Functions and graphs
- Trigonometric functions
- Counting and probability

Unit 2:

- Trigonometry
- Matrices
- Real and complex numbers

### Year 12 Course Structure

Unit 3:

- Complex numbers
- Functions and sketching graphs
- Vectors in three dimensions

Unit 4:

- Integration and applications of integration
- Rates of change and differential equations
- Statistical inference