

<i>Mathematics</i>	Year	Subject Code	ATAR	QCE Credits	VET	Prerequisites
	10	MAF/MAT/MAX	N/A	Nil	Nil	Nil

**Head of Department: Mr Colin Johnson**

### **Subject Outline:**

All students in Year 10 study the Australian Curriculum in Mathematics and will study all elements of the course to varying degrees of exposure. Students will study similar topics in all levels of Mathematics, but Extension Mathematics students will investigate topics in greater depth, as well as learning some additional material.

Content will cover the following areas: Measurement, algebra, trigonometry, rates and ratio, statistics and probability, financial mathematics, linear functions, quadratic functions, exponential functions and applications, structures and patterns and probability.

Foundation Mathematics – Focus on practical applications of mathematics where possible and development of number skills, while addressing aspects of the Australian Curriculum. In Semester 2, Foundation Mathematics classes may transition to a Short Course in Numeracy to provide students with opportunities to meet Numeracy requirements for the Queensland Certificate of Education (QCE) and bridge the learning between Year 10 and Year 11 Essential Mathematics.

### **Assessment Outline:**

For all Year 10 subjects there will be a range of assessment opportunities throughout the year and an exam each term. The assessment procedures for Year 10 mirror those of the Senior Mathematics subjects.

### **Career Pathways:**

Extension Mathematics classes lead to the career pathways outlined in General Mathematics, Mathematical Methods and Specialist Mathematics.

Mathematics classes lead to the career pathways outlined in General Mathematics and Essential Mathematics.

Foundation Mathematics classes lead to the career pathways outlined in Essential Mathematics.

### **Potential Activities:**

Students will participate in a wide range of activities such as:

- Financial mathematics e.g. budgets and taxation
- Measurement using a range of practical and IT applications
- Using software/graphics calculators for statistical analysis
- Discovering the properties of linear and quadratic functions using graphics
- Modelling and calculating real life problems
- Simulation of chance events using a range of practical equipment including software/graphics calculator.

### **Costs:**

Nil. The Textbook Hire and Resource Fee covers costs of materials and equipment used.

## **Student Requirements:**

To be in an Extension Mathematics class, students should have achieved an A or B in Year 9 Maths. It is recommended that students who achieve these grades in Year 9 consider choosing Extension Mathematics

To be in a Mathematics class, students should have completed Year 9 Mathematics to a satisfactory standard.

To be in a Foundation Mathematics class, students would typically be looking to improve basic mathematics skills.

Students in Foundation Mathematics classes are usually recommended by their Maths teachers and is not chosen by the student.

To maximise outcomes in this subject, students must have the following equipment

- Exercise books, ruler, pens, pencils, scientific calculator.