



## Mathematics, General

### STAGE 6 PRELIMINARY ~ COURSE OUTLINE

The Preliminary Mathematics General course and the HSC Mathematics General 1 (Content Endorsed) course (CEC) are designed to promote the development of knowledge, skills and understanding in areas of mathematics that have direct application to the broad range of human activity. The Preliminary Mathematics General course content is written in five Strands and two Focus Studies. The HSC Mathematics General 1 course content is written in the same five Strands and includes a further four Focus Studies. As well as introducing some new mathematical content, the Focus Studies give students the opportunity to apply and develop, in contemporary contexts, the knowledge, skills and understanding initially developed in the study of the Strands.

The Preliminary Mathematics General course is the same preliminary course that forms part of the Preliminary Mathematics General/HSC Mathematics General 2 pathway. The Preliminary Mathematics General/HSC Mathematics General 1 pathway provides students with the opportunity to develop an understanding of and competence in further aspects of mathematics for concurrent HSC studies, such as in vocational education and training courses, other practically oriented courses, and some humanities courses. It also provides an appropriate mathematical background for students entering the workforce and/or undertaking further training.

Note: As for other Content Endorsed Courses, the HSC Mathematics General 1 course will be subject to internal assessment only, and **not** formal examination at the HSC. Also, the two units of study for the HSC Mathematics General 1 course cannot be counted in the 10 units required for the calculation of an ATAR.

### MAIN TOPICS COVERED

#### ***Preliminary Mathematics General Course***

- Strand Financial Mathematics
- Strand Data and Statistics
- Strand Measurement
- Strand Probability
- Strand Algebra and Modelling
- Focus Study Mathematics and Communication
- Focus Study Mathematics and Driving

### SYLLABUS OUTCOMES

*A student ...*

- MGP-1** uses mathematics and statistics to compare alternative solutions to contextual problems
- MGP-2** represents information in symbolic, graphical and tabular form
- MGP-3** represents the relationships between changing quantities in algebraic and graphical form
- MGP-4** performs calculations in relation to two-dimensional and three-dimensional figures

- MGP-5** demonstrates awareness of issues in practical measurement, including accuracy, and the choice of relevant units
- MGP-6** models financial situations relevant to the student's current life using appropriate tools
- MGP-7** determines an appropriate form of organisation and representation of collected data
- MGP-8** performs simple calculations in relation to the likelihood of familiar events
- MGP-9** uses appropriate technology to organise information from a limited range of practical and everyday contexts
- MGP-10** justifies a response to a given problem using appropriate mathematical terminology
- MGPVA** develops a positive attitude to mathematics and appreciates its capacity to provide enjoyment and recreation

### BOSTES PRELIMINARY ASSESSMENT INFORMATION

Component	Description	Weighting
A. Concepts, skills and techniques	Use of concepts, skills and techniques to solve mathematical problems in a wide range of practical contexts	50
B. Reasoning and communication	Application of reasoning and communication in appropriate forms to construct mathematical arguments and to interpret and use mathematical models	50
		<b>100</b>

### EVIDENCE OF LEARNING (Assessment)

Task No.	Targeted Outcomes	Learning Context	Task	Date Due	Weighting		Marks
					A	B	
1	MGP 1 -10	Algebra Measurement	Assessment Task	Term 1 Week 10	10%	10%	20%
2	MGP 1 – 7	Data and Statistics Financial Mathematics	Assessment Task	Term 2 Week 9	10%	10%	20%
3	MGP 1 – 10	Communication	Focus Study Project	Term 3 Week 2	10%	10%	20%
4	MGP 1 – 10	Algebra Measurement Data and Statistics Financial Mathematics Communication	End of Course Examination	Term 3 Week 9-10	20%	20%	40%
<b>TOTAL</b>					<b>50%</b>	<b>50%</b>	<b>100 %</b>

## REPORTING PERFORMANCE AND ACHIEVEMENT IN PRELIMINARY COURSES

The Common Grade Scale shown below is used to report student achievement and performance in the Preliminary Stage 6 year in all NSW schools.

The Common Grade Scale describes performance and achievement at each of five grade levels.

<b>A</b>	The student demonstrates extensive knowledge of content and understanding of course concepts, and applies highly developed skills and processes in a wide variety of contexts. In addition the student demonstrates creative and critical thinking skills using perceptive analysis and evaluation. The student effectively communicates complex ideas and information.
<b>B</b>	The student demonstrates thorough knowledge of content and understanding of course concepts, and applies well-developed skills and processes in a variety of contexts. In addition the student demonstrates creative and critical thinking skills using analysis and evaluation. The student clearly communicates complex ideas and information.
<b>C</b>	The student demonstrates sound knowledge of content and understanding of course concepts, and applies skills and processes in a range of familiar contexts. In addition the student demonstrates skills in selecting and integrating information and communicates relevant ideas in an appropriate manner.
<b>D</b>	The student demonstrates a basic knowledge of content and understanding of course concepts, and applies skills and processes in some familiar contexts. In addition the student demonstrates skills in selecting and using information and communicates ideas in a descriptive manner.
<b>E</b>	The student demonstrates an elementary knowledge of content and understanding of course concepts, and applies some skills and processes with guidance. In addition the student demonstrates elementary skills in recounting information and communicating ideas.