# **Liverpool Girls' High School**

Innovation Excellence Learning



# **Mathematics General 2**

STAGE 6 HSC ~ COURSE OUTLINE

The HSC Mathematics General 2 pathway provides students with the opportunity to develop an understanding of and competence in further aspects of mathematics for a range of concurrent HSC studies, such as in the life sciences, the humanities and business studies. The pathway also provides a strong foundation for students entering the workforce and/or undertaking further training, and for university courses in the humanities, nursing and paramedical sciences.

### **MAIN TOPICS COVERED**

#### **HSC Mathematics General 2 Course**

•	Strand	Financial Mathematics
•	Strand	Data and Statistics
•	Strand	Measurement
•	Strand	Probability

Strand Algebra and Modelling
Focus Study Mathematics and Health
Focus Study Mathematics and Resources

### **SYLLABUS OUTCOMES**

MG2H-1	Uses mathematics and statistics to evaluate and construct arguments in a range of familiar and
	unfamiliar contexts

MG2H-3	Makes predictions about situations based on mathematical models, including those involving
	cubic, hyperbolic or exponential functions

- **MG2H-4** Analyses two-dimensional and three-dimensional models to solve practical problems, including those involving spheres and non-right-angled triangles
- MG2H-5 Interprets the results of measurements and calculations and makes judgements about reasonableness, including the degree of accuracy of measurements and calculations and the conversion to appropriate units
- MG2H-6 Makes informed decisions about financial situations, including annuities and loan repayments
- **MG2H-7** Answers questions requiring statistical processes, including the use of the normal distribution, and the correlation of bivariate data
- MG2H-8 Solves problems involving counting techniques, multistage events and expectation
- **MG2H-9** Chooses and uses appropriate technology to locate and organise information from a range of contexts
- **MG2H-10** Uses mathematical argument and reasoning to evaluate conclusions drawn from other sources, communicating a position clearly to others, and justifies a response



### **BOSTES Assessment Information**

External examination	Marks	Internal assessment	Weighting
Section 1 – Objective Response Questions	25	A. Concepts, skills and techniques	50
Section 2 - Short answer questions	75	B. Reasoning and Communication	50
TOTAL MARKS	100	TOTAL MARKS	100

# School Based Evidence of Learning ~ Formal Task Schedule

Task	Targeted Outcomes	Learning Context	Task	Date Due	Weighting		Marks
No.					А	В	Marks
1	MG2 – 4, 8	Similarity of 2D figures, applications of trigonometry, multistage events and applications of probability	Assessment Task	Tm 4 Wk 9	12.5%	12.5%	25%
2	MG2 – 5, 10	Further applications of area and volume, and mathematics and resources, further algebraic skills and techniques, modelling linear relationships	Assessment Task	Tm 1 Wk 8	12.5%	12.5%	25%
3	MG2 – 1, 2, 3, 5, 7	All Areas	Trial HSC Examination	Tm 2 Wk 9/10	20%	20%	30%
4	MG2 – 10	Focus Study Project – Mathematics and Health	Focus Study Project	Tm 3 Wk 2	10%	10%	20%
TOTAL					50%	50%	<u>100%</u>

