### MOSSMAN STATE HIGH SCHOOL

**Semester 2, 2017 – Course Outline for Year 11 Mathematics A**

**MAA112B – Ms Taplin**

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<th>Unit Name</th>
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<th>Duration (weeks)</th>
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| Data Collection and presentation(b)     | • Sample means and medians as measures of central tendency  
                                           • Sample standard deviations and interquartile range as descriptors of spread  
                                           • Use of summary statistics to draw and analyse conclusions, represent data and make inferences  
                                           • Interpretation and use of sample statistics (including sample means and medians) as estimates of parameters to predict underlying population values or of values in a model  
                                           • Latitude, Longitude and Measurement of time and distance  
                                           • Simple algebraic manipulation of relevant formulas for this topic  
                                           • Budgeting including the preparation of a personal budget plan  
                                           • Spending including discount and foreign exchange  
                                           • Business applications, including profit, loss and mark-up  
                                           • Compass bearings and reverse bearings  
                                           • Plot and determine compass bearings and reverse bearings  
                                           • Magnetic variation  
                                           • Use magnetic variation to explain the link between true bearings and magnetic bearings  
                                           • Use of maps and charts, compasses, dividers and parallel rulers or their equivalent.                                                                 | 3 weeks          | Assignment Draft Due            | Tue 1st Aug |
| Exploring and Understanding Data (a)    |                                                                                                                                                                                                          | 4 weeks          | Assignment Due                  | Thu 10th Aug |
| Elements of Applied Geometry            |                                                                                                                                                                                                          | 3 weeks          | Exams KAPS Exam 70 min unseen    | Tues 29th Aug |
| Managing Money                          |                                                                                                                                                                                                          | 3 weeks          | Exams MAPS Exam 70 min unseen    | Thu 31st Aug |
| Maps and Compasses – Navigation         |                                                                                                                                                                                                          | 5 weeks          | Exams KAPS Exam 70 min unseen    | Block Exams  |

**Literacy Components**

- Speaking and Listening: Instruction, vocabulary
- Reading & Viewing: translate information between different forms of language, text, strategies, metacognition
- Writing & Designing: support an argument using mathematics; use mathematical conventions and everyday language to provide solutions to routine and non-routine problems

**Numeracy Components**

- Number: Basic operations and BIMDAS will be applied, currency
- Algebra: Substitution into formula, transposing formulas
- Measurement: knot, nautical mile, distances on earth
- Space: navigation, earth geometry, time zones, bearings, use of maps, compasses & parallel rulers, magnetic variation
- Chance & Data: summary statistics

**ICT/Technology Components**

- Select and use ICTs in the processes of inquiry and research: use of a scientific calculator
- Select and use ICTs to create a range of responses to suit the purpose and audience:
- Select and use ICTs to collaborate and enhance communication for an identified purpose and audience: use of word processing to produce a report and present data in tables
- Develop and apply ethical, safe and responsible practices when working with ICTs:
- Use a range of advanced ICT functions and applications: