Subject name **Essential Mathematics**
Subject code MAE
Subject type Applied
Subject fee Nil
Prerequisites Minimum C- Year 10 Semester 2 Essential Maths

Course overview

Essential Mathematics is best suited to students planning to follow a vocational education pathway, whether that is progressing to TAFE courses, an apprenticeship/traineeship, or just work readiness, while completing their senior certificate.

A common misconception is that Essential Mathematics is a 'basic' mathematics option and therefore students sometimes feel they should pick a more challenging Mathematics subject for senior. This is simply not true. Essential Mathematics was developed, with the input of TAFE and training providers, to give students the level and type of mathematics important for the courses and training programs offered to non-university pathway students. Some of these courses can be quite demanding mathematically and, as such, Essential Mathematics endeavours to give students the background learning to meet those demands. Many concepts in Essential Mathematics are similar to those in General Mathematics but with a greater focus on work readiness and life skills.

Another key difference is, in Essential Mathematics students have less content to cover in each Unit of work. This gives them more time to develop and show their competency in the mathematical skills they are learning. Whereas, in General Mathematics and the other university-pathway mathematics subjects more content is covered in each unit, requiring significant commitment to study outside of class time.

Course outline

Unit 1	Unit 2	Unit 3	Unit 4
Number, data and money • Fundamental topic: Calculations • Number • Representing data • Managing money	**Data and travel** • Fundamental topic: Calculations • Time and motion • Data collection • Graphs	**Measurement, scales and chance** • Fundamental topic: Calculations • Measurement • Scales, plans and models • Probability and relative frequencies	**Graphs, data and loans** • Fundamental topic: Calculations • Bivariate graphs • Loans and compound interest • Summarising and comparing data

Assessment

Assessments in Unit 1 and Unit 2 are formative and are devised to replicate Internal assessments used in Unit 3 and Unit 4. In Unit 3 and Unit 4 students complete four summative assessments. Schools develop three summative internal assessments and the common internal assessment (CIA) is developed by the QCAA. In Unit 1 and Unit 2 (Year 11) students complete four formative assessments the same as below.

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): Problem-solving and modelling task (time frame to be negotiated in unit planning) (8 hours, maximum 1000 words)	25%	Summative internal assessment 3 (IA3): Problem-solving and modelling task (time frame to be negotiated in unit planning) (8 hours, maximum 1000 words))	25%
Common internal assessment (CIA) (60 minutes)	25%	Summative internal assessment 4 (IA4): Examination (60 minutes)	25%

Course requirements

Students will be required to have a TI-30XB Multiview Scientific Calculator. These are available for purchase from the Textbook Office for approximately $25.00.

Career opportunities

A course of study in Essential Mathematics can establish a basis for further education and employment in the fields of trade, industry, business and community services. Students learn within a practical context related to general employment and successful participation in society, drawing on the mathematics used by various professional and industry groups.