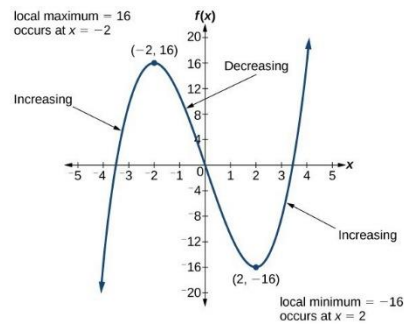


MTM315117 Mathematics Methods-Foundation

15 TCE Points



You will work through the following units as part of Mathematics Methods-Foundation

Unit 1: Manipulating, solving and sketching Linear functions (C4 and C5)

Unit 2: Manipulating, solving and sketching Quadratic functions (C4 and C5)

Unit 3: Manipulating, solving and sketching Cubic functions (C4 and C5)

Unit 4a: Manipulating, solving and sketching Exponential functions (C6)

Unit 4b: Manipulating, solving and sketching Logarithmic functions (C6)

Unit 4c: Manipulating, solving and sketching Trigonometric functions (C6)

Unit 5: Use differential calculus to investigate and solve problems (C7)

Unit 6: Investigate and solve a variety of situations using probability and combinatorics (C8)

How you'll be assessed:

Common types of internal assessments are:

- Assignments (every few weeks)
- End of unit tests (approximately 8)
- Retests for each unit
- Mid-year assessment (2 hours)

To be successful in this subject you need:

- Solid literacy skills to read, comprehend and interpret questions
- Excellent basic numeracy skills (e.g. fraction manipulation, mental computation)
- To apply critical thinking skills to a range of concepts
- Very good organisational skills and the ability to meet deadlines regularly
- Year long commitment and dedication to your studies both in and out of class
- Excellent attendance and punctuality
- To set aside several hours each week for study and homework.
- Strong communication skills (written and verbal)
- To fully prepare for a 3-hour end of year exam
- Note: There is a \$75 approx. fee to hire the calculator used in this course

The external assessment for this subject is a 3 hour exam. The dates for external exams in November are non-negotiable.

COMPLETION OF WORK

Assessment due dates are provided in the Program of Learning and on Canvas. Work must be submitted by the due date unless an approved extension has been granted. Unapproved late submissions will incur penalties as outlined in the *Completion of Work Policy*. Students needing extensions should contact their subject teacher before the due date with valid reasons, such as illness or unforeseen circumstances.

For more details refer to the Launceston College: [Completion of Work Policy](#).

ACADEMIC INTEGRITY

All senior secondary students in Tasmania are expected to uphold academic integrity, meaning they complete their work honestly and fairly. This includes properly referencing any ideas, images, or information borrowed from others, allowing teachers to distinguish between original and sourced content.

Assignments will be submitted through Canvas, email, hard copy as directed in the task sheet.

For more details, refer to the Launceston College: [Academic Integrity Policy](#)

COURSE DOCUMENT

The TASC website [Mathematics Methods - Foundation - TASC](#) provides considerable information about this course.

OTHER COURSE REQUIREMENTS

Maths Methods Foundation requires the use of a graphics calculator. At Launceston College we use the CASIO fx-CP400. These calculators can be hired for the year through the school library for \$75 approx. The fee can be paid to the office and calculators collected from the library. Hire forms will be handed out to students in the first week of classes.

Maths Methods Foundation is an academic course that requires dedication, persistence and hard work. It is an excellent subject for those students wanting their existing maths skills to be challenged and extended and are going on to study Mathematics Methods 4 and/or Maths Specialised for university. This is essentially a pure maths subject and focusses heavily on factorising, solving and sketching a range of equations all year. An excellent result from Year 10 (e.g. a 7, 8 or 9 end of year score or mainly A ratings) is required for students to have success and enjoy this subject.

Week	Date	Program of Learning 2025	Notes / Assessments
1	6 Feb	Unit 1 – Linear Algebra C4 and C5 Basic Algebra Review	
2	10 Feb	Algebraic Fractions	Assign 1. Minor C1,C3
3	17 Feb	Straight Line Graphs	Assign 2. Minor C1,C3,C4,C5
4	24 Feb	Simultaneous Equations	
5	3 Mar	Linear Modelling	Linear Test Major C1,C4,C5
6	10 Mar	Unit 2a – Quadratics C4 Expanding Quadratic Functions	
7	17 Mar	Factorising Quadratic Functions	Assign 3 Quadratics, Minor C1,C3,C4,C5
8	24 Mar	Quadratic Formula and the Discriminant	Quadratics Test 1 (C4) Major C1, C4, C2
9	31 Mar	Unit 2b – Quadratics C5 Quadratic Graphs	Assign 4 Quadratics, Minor C1,C3,C4,C5
10	7 Apr	Simultaneous Quadratic and Linear Graphs	Quadratics Test 2 (C5) Major C1 ,C5, C2
Term 1 break – Saturday 12 April – Sunday 27 April			
1	28 Apr	Unit 3 – Cubics C4 and C5 Cubic Functions and Pascal's Triangle	
2	5 May	Factorising Polynomials and Cubic Functions	Assign 5 Cubics, Minor C1,C3,C4,C5
3	12 May	Cubic Graphs	
4	19 May	Unit 4a – Exponentials C6 Exponential Functions and Index Laws	Cubics Test Major C1, C4,C5, C2 <i>Assign 6a Exp Manipulation, Minor C1, C3,C6</i>
5	26 May	Exponential Graphs	<i>Assign 6b Exp Sketching, Minor C1, C3,C6</i>
6	2 June	Unit 4b – Logs C6 Logarithms and Log Laws	Test Exponentials Major C1, C6, C2
7	9 June	Logarithmic Graphs and Applications	<i>Assign 6c Logs, Minor C1, C3,C6</i>
8	16 June	<i>Revision</i>	
9	23 June	Mid-Year Assessments Level 3 & 4 Subjects	
10	30 June	Mid-Year Assessments Level 3 & 4 Subjects	
Term 2 break – Saturday 5 July – Sunday 20 July			
1	21 July	Unit 4c – Trig C6 Right Angled Trig, Sine and Cosine Laws	
2	28 July	Unit Circle and Trig Equations	Assign 7 Trig, Minor C1,C3,C6
3	4 Aug	Trigonometric Graphs	Test Logs/Trig Major C1,C6, C2
4	11 Aug	Unit 5 – Calculus C7 Rates of Change	RetestC4. Major
5	18 Aug	Differentiation	RetestC5. Major
6	25 Aug	Tangents and Normals	Assign 8 Calculus. Minor, C1,C3,C7
7	1 Sep	Stationary Points	RetestC6. Major
8	8 Sep	Minimum and Maximum Problems	Calculus Test Major C1,C7, C2
9	15 Sep	Unit 6 – Probability C8 Definitions and Theoretical Probability	
10	22 Sep	Tree, Lattice and Venn Diagrams	Assign 9 Probability. Minor C1,C3,C8 RetestC7. Major
Term 3 break – Saturday 27 September – Sunday 12 October			
1	13 Oct	Karnaugh Maps and Conditional Probability	
2	20 Oct	Independent Events and Combinations	Probability Test Major C2,C8 Retest C8. Major
3	27 Oct	Revision	
4	3 Nov	Revision	

ASSESSMENT

Criterion-based assessment helps students see how well they're meeting course outcomes at the end of their study. While there is continuous feedback to guide learning, final assessments focus on showing what students have achieved by the end. Ratings are given as 'A', 'B', or 'C', based on course standards. A 't' indicates partial achievement below a 'C', and a 'z' means no evidence provided.

Schools follow TASC's quality assurance to keep standards consistent. More details are on the [TASC website](#). Final awards are based on both internal and TASC-supervised external assessments.

Criteria

The assessment for *Mathematics Methods - Foundation Level 3* will be based on the degree to which the learner can:

- 1. communicate mathematical ideas and information
- 2. apply mathematical reasoning and strategy in problem solving situations
- 3. use resources and organisational strategies
- 4. manipulate algebraic expressions and solve equations*
- 5. understand linear, quadratic and cubic functions*
- 6. understand logarithmic, exponential and trigonometric functions*
- 7. use differential calculus in the study of functions*
- 8. understand experimental and theoretical probabilities and of statistics*

* = denotes criteria that are both internally and externally assessed

Award Requirements: The minimum requirements for an award in *Mathematics Methods – Foundation Level 3* are as follows:

EXCEPTIONAL ACHIEVEMENT (EA)

11 'A' ratings, 2 'B' ratings (4 'A' ratings and 1 'B' rating from external assessment)

HIGH ACHIEVEMENT (HA)

5 'A' ratings, 5 'B' ratings, 3 'C' ratings (2 'A' ratings, 2 'B' ratings and 1 'C' rating from external assessment)

COMMENDABLE ACHIEVEMENT (CA)

7 'B' ratings, 5 'C' ratings (2 'B' ratings and 2 'C' ratings from external assessment)

SATISFACTORY ACHIEVEMENT (SA)

11 'C' ratings (3 'C' ratings from external assessment)

PRELIMINARY ACHIEVEMENT (PA)

6 'C' ratings

A learner who otherwise achieves the ratings for a CA (Commendable Achievement) or SA (Satisfactory Achievement) award but who fails to show any evidence of achievement in one or more criteria ('z' notation) will be issued with a PA (Preliminary Achievement) award.