MTG315123 (15 TCE points)





You will work through the following units as part of General Mathematics 3:

Unit 1: Bivariate Data Analysis

understand and apply concepts and techniques of bivariate data analysis and time series analysis using the statistical investigation process

Unit 2: Finance

understand and apply concepts and techniques to solve problems involving loans, investment and annuities

Unit 3: Growth and Decay in Sequences

understand and apply concepts and techniques to model and solve problems involving growth and decay in sequences

Unit 4: Networks

understand and apply concepts and techniques to represent, analyse and solve problems in the twodimensional plane.

How you'll be assessed:

Common types of internal assessments are:

- Assignments
- Investigations
- End-of-Unit test

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.

REFERENCING

The Harvard referencing system is recommended for subject name. The standards for criterion 1 state that a student must:

- create appropriate reference lists/bibliographies and use in-text referencing.
- clearly identifies the information, images, ideas and words of others used in the student's work.

COURSE DOCUMENT

The TASC website provides considerable information about the course. General Mathematics - TASC

WEEK	DATE MONDAY		PROGRAM OF WORK 2025		
1	3 Feb	C5 Bivariate Data Analysis	Review Linear Graphs		Yr 11s and 12's return February 6 (Thursday)
2	10 Feb	C5 Bivariate Data Analysis	Linear Modelling	Assignment 1 Minor, C1, C2, C5	
3	17 Feb	C5 Bivariate Data Analysis	Linear Modelling	Assignment 2 Minor, C1, C2, C5	
4	24 Feb	C5 Bivariate Data Analysis	Linear Modelling, 2 Way Tables	Investigation Minor C1, C3, C5	Wed 26 Feb – Launceston Cup
5	3 Mar	C5 Bivariate Data Analysis	Time Series Analysis	Assignment 3 Minor, C1, C2, C5	
6	10 Mar	C5 Bivariate Data Analysis	Time Series Analysis		Mon 10 Mar – Public Holiday
7	17 Mar	C5 Bivariate Data Analysis	Unit Revision	Bivariate Data Unit Test Major C5	
8	24 Mar	C5 Bivariate Data Analysis	Analysis Investigation	Major Investigation C1 ,C2, C3 ,C4	
9	31 Mar	C7 Finance	Compound Int.	,,,,	
10	7 Apr	C7 Finance	Effective Interest, Inflation	Assignment 1 Minor, C1, C2, C7	
April 12 - April 27 – Term 1 Holidays					
11	28 Apr	C7 Finance	Depreciation		
12	5 May	C7 Finance	Annuities in Adv and Arrears.	Assignment 2 Minor, C1, C2, C7	
13	12 May	C7 Finance	Annuities Apps	Investigation Minor C1, C3, C7	
14	19 May	C7 Finance	Perpetuities	Finance Unit Test Major C7	
15	26 May	C6 Growth and Decay in Sequences	Arithmetic Sequences		
16	2 June	C6 Growth and Decay in Sequences	Geometric Sequences	Assignment 1 Minor, C1, C2	
17	9 June	C6 Growth and Decay in Sequences	Arithmetic and Geometric Sequences Applications	Assignment 2 Minor, C1, C2	King's Birthday June 9
18	16 June	C6 Growth and Decay in Sequences	Difference Equations		
19	23 June		Mid-year Exams		
20	30 June				
			July 5 - July 20 – Term 2 Holidays		
21	21 July	C6 Growth and Decay in Sequences	Steady State Problems	Investigation Minor C1, C3, C6	
22	28 July	C6 Growth and Decay in Sequences	Difference Equations Applications		
23	4 Aug	C6 Growth and Decay in Sequences	Unit Revision	Sequences Unit Test Major C6	
24	11 Aug	C7 Finance	Analysis Investigation	Major Investigation C1 ,C2, C3 ,C4	BVDA Retest
25	18 Aug	C8 Networks & Decision Mathematics	Terminology, Euler's formula		
26	25 Aug	C8 Networks & Decision Mathematics	Walks, Trails, Paths, Shortest Distance	Assignment 1 Minor, C1, C2, C8	
27	1 Sep	C8 Networks & Decision Mathematics	Min Connection, Flow	Investigation Minor C1, C3, C8	6 Sep QA Day
28	8 Sep	C8 Networks & Decision Mathematics	Precedence Graphs, Critical Path Analysis	Assignment 2 Minor, C1, C2, C8	Finance Retest
29	15 Sep	C8 Networks & Decision Mathematics	Assignment Problems	Networks Unit Test Major C8	
30	22 Sep	C3 Revision	BV-Data, Sequences and Series and Finance		Sequences Retest
	<u> </u>		April 12 - April 27 – Term 1 Holidays	<u> </u>	<u> </u>
31	13 Oct	C3 Revision	BV-Data, Sequences and Series and Finance	C3 Test Major	
32	20 Oct	Revision			Network Retest
33	27 Oct	Revision			
34	3 Nov	Revision			Rec Day 4 Nov

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 <u>TASC website</u>. Final awards are based on both internal and TASC-supervised external assessments.

Criteria

- 1. communicate mathematical ideas and information and apply mathematical conventions
- 2. manage and take responsibility for learning and evaluate mathematical development
- 3. apply mathematical and statistical models to investigate, represent and analyse real-world situations and solve problems*
- 4. use digital technology and other sources to develop mathematical ideas and find solutions to mathematical problems
- 5. interpret concepts and apply mathematical techniques to solve problems involving bivariate data analysis and time series analysis using the statistical investigation process*
- 6. interpret concepts and apply mathematical techniques to model patterns and solve problems involving growth and decay in sequences*
- 7. interpret concepts and apply mathematical techniques to solve problems involving standard financial models*
- 8. interpret concepts and apply mathematical techniques to represent, analyse and solve practical problems in the two-dimensional plane**

Award Requirements

The final award will be determined by the Office of Tasmanian Assessment, Standards and Certification from 13 ratings, 8 from the internal assessment, 5 from external assessment.

The minimum requirements for an award in this course are as follows:

EXCEPTIONAL ACHIEVEMENT (EA)

10 'A' ratings, 3 'B' ratings, (3 'A' ratings, 2 'B' ratings from external assessment)

HIGH ACHIEVEMENT (HA)

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

COMMENDABLE ACHIEVEMENT (CA)

6 'B' ratings, 6 'C' ratings, (2 'B' ratings, 3 '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.