

# **MATHEMATICS** LEARNING AREA OVERVIEW

#### Learning Area Statement:

Mathematics is the study of order, relation and pattern. From its origins in counting and measuring, it has evolved in highly sophisticated and elegant ways to become the language used to describe much of the physical world. Mathematics also involves the study of ways of collecting and extracting information from data and of methods of using that information to describe and make predictions about the behaviour of aspects of the real world, in the face of uncertainty. Mathematics provides a framework for thinking and a means of communication that is powerful, logical, concise and precise. It impacts upon the daily life of people everywhere and helps them to understand the world in which they live and work.

(https://www.australiancurriculum.edu.au/senior-secondary-curriculum/mathematics/specialist-mathematics/rationale/)

independent schools tasmania Catholic Education

Tasmania



Years 9-12 Learning Department of Education

#### Planned expiry of current courses\*:

EXPIRING	EXPIRING	EXPIRING	EXPIRING	EXPIRING	EXPIRING	EXPIRING
END 2021	END 2022	END 2023	END 2024	END 2025	END 2026	END 2027
	Everyday Maths 1 General Mathematics - Foundation 2 Workplace Maths 2 General Mathematics 3	Essential Skills - Maths 2 Mathematics Methods - Foundation 3	Mathematics Methods 4	Mathematics Specialised 4	Preliminary Mathematics Stages 1-4	Nil

\* Subject to development, accreditation and course renewal processes



## **Current Complementary Offerings Include:**



- Mathematics 1A 
  Mathematics I
- Mathematics 1B
  Mathematics II

#### P UCP

• Nil

#### CERT I, II, III

There are currently no direct links to any VET Qualifications in Mathematics in Tasmania.

However, as Mathematics is integral across all curriculum areas, individual units from within qualifications may apply.

#### ASBA

Australian School-based Apprenticeships

An Australian School-based Apprenticeship (ASbA) is a paid, employment-based training arrangement.

Students in Year 10, 11 or 12 are able to combine work, training and education to gain a nationally recognised qualification, usually at Certificate II or III level – across almost every industry sector and training package.

What could an ASbA look like in the Mathematics learning area?

This learning area complements ASbA pathways. For example, a learner could be employed as a school-based trainee one or toe days a week in the financial and insurance services industry.

For further information please visit the Department of Education's Website - <u>https://www.education.tas.gov.au/parents-carers/parent-fact-sheets/australian-school-based-apprenticeship-asba/</u>

## KEY TASMANIAN

- Advanced manufacturing
- Antarctic and Southern Ocean
- Building and construction
- Cultural and tourism industry
- Defence
- Food & Agribusiness
- Forestry and related industries
- · Health and community services
- Information, communication and technology
- International education
- Mining and mineral processing
- Renewable energy
- Science research, including medical research

### Planned course provision\*

PRELIM	LEVEL I	LEVEL 2	LEVEL 3 (and further pathways)	LEVEL 3/4 (and further pathways)	
		Essential Mathematics - Personal			
	Mathematics	Essential Mathematics - Workplace			
Preliminary Mathematics		General Mathematics	General Mathematics		
(Stages 1 - 4)		Essential Skills Numeracy (5)			
	Numeracy		Mathematical Methods	Mathematical Methods 4	
				Specialist Mathematics 4	
KEY - Focus Areas					
Transdisciplinary Projects	Professional Studies 🛛 📕 Disci	ipline-based Study			
Work-based Learning	Personal Futures				
* Subject to development, accreditation and course renewal processes.					

#### Current pathways in - pathways out

PATHWAYS IN	PATHWAYS OUT			
Australian Curriculum	Australian Curriculum – Packages of Learning	The courses in the Mathematics area may provide a pathway to certificate or diploma courses offered by TasTAFE and/or through a private provider.		
AC: Mathematics 10A (Can be sufficient for enrolment in	Packages of Learning are aligned to an identified growth industry and adopt an integrated approach to teaching the Australian Curriculum in years 9 & 10.			
Mathematical Methods Level 4)	Advanced Manufacturing,	Pathways to Tertiary study		
AC: Mathematics 10	Agriculture, Food & Natural Resources	The University of Tasmania has a broad range of offerings a		
https://www.australiancurriculum.edu.	Architecture & Construction			
au/f-10-curriculum/mathematics/	Health and Community Services	the Mathematics area.		
	• Hospitality & Iourism			

#### **Curriculum priorities**



ENGAGEMENT

Strengthening engagement for learners with innovative curriculum at point of need and place

#### PATHWAYS

물

Strengthening pathways for learners through a tailored and future-focussed curriculum that leads into further education, training and work



#### WORK AND LIFE

Preparing learners for work and life with contemporary curriculum that leads to productive and fulfilling lives

## Planned course provision by year\*

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## 2022

PRELIM	LEVEL I	LEVEL 2	<b>LEVEL 3</b> (and further pathways)	LEVEL 3/4 (and further pathways)
		Workplace Maths (15)		
Dudination Mathematica		General Mathematics Foundation (15)	General Mathematics (15)	
(Stagos 1 4)	Everyday Maths (10)	Essential Skills - Maths (10)		
(Stages 1 - 4)			Mathematics Methods Foundation (15)	Mathematics Methods 4 (15)
				Mathematics Specialised 4 (15)

## 2023

PRELIM	LEVEL I	LEVEL 2	<b>LEVEL 3</b> (and further pathways)	LEVEL 3/4 (and further pathways)
		Essential Mathematics - Personal		
	Mathematics      Essential Mathematics - Workplace        General Mathematics      General Mathematics	Essential Mathematics - Workplace		
Preliminary Mathematics		General Mathematics		
(Stages 1 - 4)		Essential Skills - Maths (10)		
	Numeracy		Mathematics Methods Foundation (15)	Mathematics Methods 4 (15)
				Mathematics Specialised 4 (15)

## 2024

PRELIM	LEVEL I	LEVEL 2	<b>LEVEL 3</b> (and further pathways)	LEVEL 3/4 (and further pathways)
	Mathematics	Essential Mathematics - Personal		
		Essential Mathematics - Workplace		
Preliminary Mathematics		General Mathematics	General Mathematics	
(Stages 1 - 4)		Essential Skills Numeracy (5)		
	Numeracy		Mathematical Methods	Mathematics Methods 4 (15)
				Mathematics Specialised 4 (15)

\* Subject to development, accreditation and course renewal processes. For further information regarding future years, please see the planned course provision document.

## Planned course development activity by year\*

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## 2022

Early Development	Development and Accreditation	Resource Development and Professional Learning	Implementation		NO LONGER AVAILABLE
TRANCHE 3	TRANCHE 2	TRANCHE IB	TRANCHE IA	TYPE	
4 Mathematical Methods	2 Essential Skills Numeracy (5)	1 Mathematics			
	3 Mathematical Methods	1 Numeracy			
		2 Essential Mathematics - Personal			
		2 Essential Mathematics - Workplace			
		2 General Mathematics			
		3 General Mathematics			

## 2023

Early Development	Development and Accreditation	Resource Development and Professional Learning	Implementation		NO LONGER AVAILABLE
TRANCHE 4	TRANCHE 3	TRANCHE 2	TRANCHE IB	TYPE	
4 Specialist Mathematics	4 Mathematical Methods	2 Essential Skills Numeracy (5)	1 Mathematics	*	Everyday Maths (MTE110114)
		3 Mathematical Methods	1 Numeracy	*	
			2 Essential Mathematics - Personal	<b>_</b>	$\lambda / \alpha = 1 + \alpha = M_{a+b} = (MT) A / 21 (120)$
			2 Essential Mathematics - Workplace	<b>X</b>	
			2 General Mathematics		General Mathematics Foundation (MTG215114)
			3 General Mathematics		General Mathematics (MTG315120)

## 2024

Early Development	Development and Accreditation	Resource Development and Professional Learning	Implementation		NO LONGER AVAILABLE	
TRANCHE 5	TRANCHE 4	TRANCHE 3	TRANCHE 2	TYPE		
P Preliminary Mathematics	4 Specialist Mathematics	4 Mathematical Methods	2 Essential Skills Numeracy (5)	*	Essential Skills – Maths (MTN210114)	
			3 Mathematical Methods		Mathematics Methods Foundation (MTM315117)	

#### КЕҮ - Туре

Evolution of previously existing TASC-Accredited Course

★ New Contemporary Course