



**Monivae**  
College Hamilton

# MATHEMATICS

## OVERVIEW OF YEAR 7 TO 10 MATHEMATICS

The Victorian Curriculum Version 2.0 - Mathematics aims to ensure that students:

- develop useful mathematical and numeracy skills for everyday life and work, as active and critical citizens in a technological world
- become confident, proficient, effective and adaptive users of mathematics
- become effective communicators of mathematics who can investigate, represent and interpret situations in their personal and work lives, think critically, and make choices as active, engaged, numerate citizens
- develop proficiency with mathematical concepts, skills, procedures and processes, and use them to demonstrate mastery in mathematics as they pose and solve problems, and reason with number, algebra, measurement, space, statistics and probability
- make connections between areas of mathematics and apply mathematics to model situations in various fields and disciplines
- develop a positive disposition towards mathematics, recognising it as an accessible and useful discipline to study
- appreciate mathematics as a discipline – its history, ideas, problems and applications, aesthetics and philosophy.

Mathematics is a sequential subject that is compulsory for all students until the end of Year 10. The subjects offered in the Mathematics Faculty are:

<b>Year 7</b>	<b>Mathematics</b>
<b>Year 8</b>	<b>Mathematics</b>
<b>Year 9</b>	<b>Mainstream Mathematics</b> <b>Consolidating Mathematics</b>
<b>Year 10</b>	<b>Advanced Mathematics</b> <b>Mainstream Mathematics</b> <b>Consolidating Mathematics</b>



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## Topics covered:

SEMESTER	Year 7	Year 8
One	Whole numbers Integers and the cartesian plane  Fractions and ratios Decimals and percentages	Number Algebra Measurement Indices Pythagoras' theorem Probability and sets
Two	Algebra Equations Measurement Lines, angles and shapes Statistics Probability	Statistics Linear equations and graphing Percentages and financial maths Ratio, proportion and rates Geometry
SEMESTER	Year 9	Year 10
One	Equation solving Trigonometry Algebra Geometry Probability	Algebra Probability Geometry Trigonometry
Two	Measurement Inequations Financial maths Linear relationships Statistics Indices	Surds, indices and logarithms (Advanced Maths)  Linear functions  Quadratic graphs (Advanced Maths)  Statistics  <b>Consolidating Maths</b> Measurement Trigonometry Financial and Business Maths



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# VCE MATHEMATICS

UNITS OFFERED:

**Units 1 & 2:**

Foundation Mathematics  
General Mathematics  
Mathematical Methods  
Specialist Mathematics

**Units 3 & 4:**

Foundation Mathematics  
General Mathematics  
Mathematical Methods  
Specialist Mathematics

## YEAR 11 CHOICES

**One Mathematics Subject (1 or 2 Units):**

Mathematical Methods 1 & 2

or

General Mathematics 1 & 2

or

Foundation Mathematics 1 & 2

**Two Mathematics Subjects (4 units):**

Mathematical Methods 1 & 2 and  
Specialist Mathematics 1 & 2

## YEAR 12 CHOICES

**One Mathematics Subject (2 Units):**

Mathematical Methods 3 & 4

or

General Mathematics 3 & 4

or

Foundation Mathematics 3 & 4

**Two Mathematics Subjects (4 units):**

Mathematical Methods 3 & 4  
With Specialist Mathematics 3 & 4

or

Mathematical Methods 3 & 4  
With General Mathematics 3 & 4



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# UNIT TITLES AND AREAS OF STUDY

## (Study Design Accreditation Period 2023-2027)

UNIT	TITLE	AREAS OF STUDY
1 & 2	Foundation Mathematics	<ol style="list-style-type: none"> <li>1. Algebra, number and structure</li> <li>2. Data analysis, probability and statistics</li> <li>3. Discrete mathematics</li> <li>4. Space and measurement</li> </ol>
1 & 2	General Mathematics	<ol style="list-style-type: none"> <li>1. Data analysis, probability and statistics</li> <li>2. Algebra, number and structure</li> <li>3. Functions, relations and graphs</li> <li>4. Discrete Mathematics</li> <li>5. Space and measurement</li> </ol>
1 & 2	Mathematical Methods	<ol style="list-style-type: none"> <li>1. Functions, relations and graphs</li> <li>2. Algebra, number and structure</li> <li>3. Calculus</li> <li>4. Data Analysis, Probability and Statistics</li> </ol>
1 & 2	Specialist Mathematics	<ol style="list-style-type: none"> <li>1. Algebra, number and structure</li> <li>2. Discrete mathematics</li> <li>3. Data Analysis, probability and statistics</li> <li>4. Functions, relation and graphs</li> <li>5. Space and measurement</li> </ol>
3 & 4	Foundation Mathematics	<ol style="list-style-type: none"> <li>1. Algebra, number and structure</li> <li>2. Data analysis, probability and statistics</li> <li>3. Discrete mathematics</li> <li>4. Space and measurement</li> </ol>
3 & 4	General Mathematics	<ol style="list-style-type: none"> <li>1. Data Analysis, probability and statistics</li> <li>2. Discrete Mathematics</li> </ol>
3 & 4	Mathematical Methods	<ol style="list-style-type: none"> <li>1. Functions, relations and graphs</li> <li>2. Algebra, number and structure</li> <li>3. Calculus</li> <li>4. Data Analysis, Probability and Statistics</li> </ol>
3 & 4	Specialist Mathematics	<ol style="list-style-type: none"> <li>1. Algebra, number and structure</li> <li>2. Discrete mathematics</li> <li>3. Data Analysis, probability and statistics</li> <li>4. Functions, relation and graphs</li> <li>5. Space and measurement</li> <li>6. Calculus</li> </ol>



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## Year 11

Foundation Maths  
1 & 2

General Mathematics  
1 & 2

Mathematical Methods  
1 & 2

Mathematical Methods  
1 & 2  
Specialist Mathematics  
1 & 2\*

## Year 12

Foundation Maths  
3 & 4

General Mathematics  
3 & 4

Mathematical Methods  
3 & 4

Mathematical Methods  
3 & 4  
Specialist Mathematics  
3 & 4 \*

OR

Mathematical Methods  
3 & 4

OR

General Mathematics  
3 & 4

OR

Mathematical Methods 3 & 4  
General Mathematics 3 & 4

\*Year 11 Specialist Mathematics cannot be done alone

\*Year 12 Specialist Mathematics cannot be done alone