

## Teaching VCE Senior Maths Units 1 & 2 in 2022 using *Cambridge Senior Mathematics VCE*

This information is designed to assist schools to prepare students for Units 3 & 4 of the revised Senior Maths Study Design (beginning 2023) using the current ***Cambridge Senior Mathematics VCE Units 1&2*** textbooks.

This document has been prepared following the advice to teachers from the VCAA published in November 2021:

<https://www.vcaa.vic.edu.au/Documents/vce/mathematics/2022MathematicsImplementationAdvice.docx>

### NEW EDITIONS OF CAMBRIDGE SENIOR MATHEMATICS VCE COMING IN 2022

## General Mathematics Units 1&2

The VCAA has advised that the following selection of topics from the current General Mathematics Units 1 and 2 will provide a suitable preparation for General Mathematics Units 3 and 4 in 2023.

Chapters from the *Cambridge General Mathematics VCE Units 1&2* textbook are shown in red. The unit and order of coverage can be varied as suits the teaching and learning context.

Unit 1	Unit 2
Computation and practical arithmetic (Chapter 1)	Linear relations and equations (Chapter 3)
Investigating and comparing data distributions (Chapter 2)	Investigation relationships between two numerical variables (Chapter 7)
Graphs and networks (Chapter 9)	Matrices (Chapter 5)
Linear graphs and models (Chapter 6)	Number patterns and recursion (omit the Fibonacci sequence) (Chapter 8)

## Mathematical Methods Units 1&2

The current *Cambridge Mathematical Methods Units 1&2* textbook can be used with minor adjustments.

The VCAA has advised that the following content can be **omitted** from the Units 1 and 2 course. Relevant chapters of the Cambridge textbook are given in red.

### Content that can be **omitted** from Unit 1:

- vertical line test to determine whether a relation is a function (Chapter 5)
- non-function relations (Chapter 5)
- use of matrices for transformations (Chapter 7)

### Content that can be **omitted** from Unit 2:

- first principles differentiation of polynomial functions (Chapter 17)
- differentiation and anti-differentiation by rule of functions other than polynomial functions (Chapter 17)

Please refer to the VCAA's guidance document for other advice regarding the Mathematical Methods course, in particular regarding numerical approximation for derivatives of a function.

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## Specialist Mathematics Units 1&2

The VCAA has advised that the following selection of topics from the current Specialist Mathematics Units 1 and 2 in 2022 will provide a suitable preparation for Specialist Mathematics Units 3 and 4 in 2023.

Chapters from the *Cambridge Specialist Mathematics Units 1&2* textbook are given in red.

Unit 1	Unit 2
Number systems and recursion (Chapter 2)	Simulation, sampling and sampling distributions (Chapter 12)
Graphs of non-linear relations (Chapter 15)	Graph theory (online Chapter 27 within Appendix A)
Logic and algebra (Chapters 8 and online Chapter 26 within Appendix A)	Vectors (Chapter 20)
Geometry in the plane and proof (Chapters 8 and 9)	Transformations, trigonometry and matrices (Chapters 13, 14, 18, 19)

Please refer to VCAA's guidance document for other advice regarding the Specialist Mathematics course, in particular regarding content within the topic **Graphs of non-linear relations**.