

Summary of changes to Years 11 and 12 Mathematics Methods ATAR

Overall

The Mathematics Methods ATAR course was originally adopted in 2015 with minimal modifications from the ACARA Mathematical Methods course.

The course has been updated to ensure alignment and continuity between the revised Western Australian Curriculum: Mathematics in Year 10 and the Mathematics Methods syllabuses. The review has involved adding, refining and removing content, and reorganising content within and across topics. These changes provide greater clarity, improved detail and a more relevant curriculum.

General

- Content has been removed to enable more time to develop deeper conceptual understanding of the fundamentals of the course.
- Content has been reorganised to emphasise the natural connections between concepts and to show a developmental progression between the year levels.
- Content has been reworded to provide clarity on the depth and breadth of syllabus content.
- Content has been included to provide a progressive alignment with Year 10 core content and to introduce content relevant to further study that involves mathematics.
- The notional time requirements for each topic within the units have been removed to allow flexibility in the time planned by teachers to deliver content, based on the prior learning of their student cohort.

Organisation of content

Mathematics Methods ATAR course content		
	Current	Proposed
Unit 1	• Counting and probability • Functions and graphs • Trigonometric functions	• Linear relationships and matrix methods • Algebraic techniques • Functions, relations and graphs
Unit 2	• Exponential functions • Arithmetic and geometric sequences and series • Introduction to differential calculus	• Trigonometric functions • Probability • Introduction to differential calculus
Unit 3	• Further differentiation and applications • Integrals • Discrete random variables	• Exponential and logarithmic functions • Further differentiation and applications • Integration
Unit 4	• The logarithmic function • Continuous random variables and the normal distribution • Interval estimates for proportions	• Discrete random variables • Continuous random variables • Sample proportions

Unit content changes

Key content changes have been identified below. Teachers **must** consult the curriculum for a comprehensive understanding of changes.

- Combinations, and sequences and series have been removed.
- A fundamental understanding of matrices and their use in solving equations have been included.
- Introduction of Anti-differentiation has been moved from Unit 2 to Unit 3 to enable a more thorough foundational understanding of differentiation before progressing to the inverse operation.
- Exponential and logarithmic functions have been combined, emphasising the natural connection between these number forms.

Types of assessment

- No changes

Examination design brief

- No changes