# Mathematics Extension 1 11–12 Syllabus (2024): Stage 6 (Year 11) Australian Curriculum mapping

The Australian Curriculum codes are listed under each syllabus focus area and its associated content groups.

| Further work with functions | Polynomials | Further trigonometry | Permutations and combinations | The binomial theorem |
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| **Graphical relationships**  ACMSM099  ACMSM100 | **Language and graphs of polynomials**  ACMMM015  ACMMM017 | **Trigonometry in three dimensions**  No associated ACARA code | **Permutations and combinations**  ACMSM001  ACMSM002  ACMSM003  ACMSM004  ACMSM007  ACMSM008 | **The binomial theorem**  ACMSM009 |
| **Inverse functions**  ACMSM094  ACMSM095  ACMSM096 | **Remainder and factor theorems**  ACMMM018  ACMMM019  ACMSM089  ACMSM091 | **Further trigonometric identities**  ACMSM044  ACMSM048 |  |  |
| **Parametric form of a function or relation**  No associated ACARA code | **Sums and products of zeroes of polynomials**  ACMSM074 | **Further trigonometric equations**  ACMSM048  ACMSM050 |  |  |
| **Inequalities**  No associated ACARA code |  |  |  |  |

# Mathematics Extension 1 11–12 Syllabus (2024): Stage 6 (Year 12) Australian Curriculum connections

The Australian Curriculum codes are listed under each syllabus focus area and its associated content groups.

| Proof by mathematical induction | Introduction to vectors | Inverse trigonometric functions | Further calculus skills | Further applications of calculus | The binomial distribution and sampling distribution of the mean |
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| **Proof by mathematical induction**  ACMSM064  ACMSM065  ACMSM066 | **Vector representation and notation**  ACMSM011 | **Definitions of inverse trigonometric functions**  ACMSM119 | **Further derivatives of functions**  ACMSM120 | **Multiplicity of zeroes of polynomial functions**  No associated ACARA code | **Bernoulli distributions**  ACMMM147 |
|  | **Introduction to 2D and 3D vectors**  ACMSM014  ACMSM015  ACMSM016  ACMSM101  ACMSM103 | **Graphs of inverse trigonometric functions**  ACMSM119 | **Techniques of integration**  ACMSM116  ACMSM117 ACMSM121 | **Further rates of change**  ACMSM129 | **Binomial distributions**  ACMMM148  ACMMM149  ACMMM150 |
|  | **Operating with vectors**  ACMSM011  ACMSM012  ACMSM013  ACMSM017  ACMSM018  ACMSM021 |  |  | **Areas between curves and volumes of solids of revolution**  ACMSM124  ACMSM125 | **Sampling distribution of the mean and the central limit theorem**  ACMSM137  ACMSM138  ACMSM139 |
|  | **Further operations with vectors**  ACMSM019  ACMSM020  ACMSM022 |  |  | **Differential equations**  ACMSM130  ACMSM131  ACMSM132 |  |
|  | **Motion in vector form in two dimensions**  ACMSM023  ACMSM106  ACMSM111  ACMSM113  ACMSM114 |  |  |  |  |
|  | **Projectile motion**  ACMSM115 |  |  |  |  |