# 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**ACMSM099ACMSM100 | **Language and graphs of polynomials**ACMMM015ACMMM017 | **Trigonometry in three dimensions**No associated ACARA code | **Permutations and combinations**ACMSM001ACMSM002ACMSM003ACMSM004ACMSM007ACMSM008 | **The binomial theorem**ACMSM009 |
| **Inverse functions**ACMSM094ACMSM095ACMSM096 | **Remainder and factor theorems**ACMMM018ACMMM019ACMSM089ACMSM091 | **Further trigonometric identities**ACMSM044ACMSM048 |  |  |
| **Parametric form of a function or relation**No associated ACARA code | **Sums and products of zeroes of polynomials**ACMSM074 | **Further trigonometric equations**ACMSM048ACMSM050 |  |  |
| **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**ACMSM064ACMSM065ACMSM066 | **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**ACMSM014ACMSM015ACMSM016ACMSM101ACMSM103 | **Graphs of inverse trigonometric functions**ACMSM119 | **Techniques of integration**ACMSM116ACMSM117 ACMSM121 | **Further rates of change**ACMSM129 | **Binomial distributions**ACMMM148ACMMM149ACMMM150 |
|  | **Operating with vectors**ACMSM011ACMSM012ACMSM013ACMSM017ACMSM018ACMSM021 |  |  | **Areas between curves and volumes of solids of revolution**ACMSM124ACMSM125 | **Sampling distribution of the mean and the central limit theorem**ACMSM137ACMSM138ACMSM139 |
|  | **Further operations with vectors**ACMSM019ACMSM020ACMSM022 |  |  | **Differential equations**ACMSM130ACMSM131ACMSM132 |  |
|  | **Motion in vector form in two dimensions**ACMSM023ACMSM106ACMSM111ACMSM113ACMSM114 |  |  |  |  |
|  | **Projectile motion**ACMSM115 |  |  |  |  |