# Mathematics Extension 2 11–12 Syllabus (2024): Stage 6 (Year 12)Australian Curriculum mapping

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

| The nature of proof | Further work with vectors | Introduction to complex numbers | Further integration | Applications of calculus to mechanics |
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| **The language and notation of proof** ACMSM024ACMSM026ACMSM027 | **Vector equations of lines and curves** ACMSM103ACMSM104ACMSM105 | **Arithmetic of complex numbers** ACMSM067ACMSM068ACMSM069ACMSM070 | **Further integration**ACMSM047ACMSM122ACMSM123 | **Forces and further motion in a straight line**ACMSM133ACMSM134ACMSM135ACMSM136 |
| **Illustrations of proofs**ACMSM025ACMSM028ACMSM061ACMSM063 | **Vectors and geometry** ACMSM039ACMSM040ACMSM041ACMSM102 | **Geometric representation of complex numbers**ACMSM071 |  | **Simple harmonic motion**ACMSM136 |
| **Proof of inequalities**No associated ACARA code |  | **Solving equations with complex numbers**ACMSM075ACMSM076ACMSM090 |  | **Modelling motion without resistance**ACMSM136 |
| **Further proof by mathematical induction**No associated ACARA code |  | **Powers and roots of complex numbers**ACMSM072 |  | **Rectilinear resisted motion**ACMSM136 |
|  |  | **Describing lines, curves and regions**No associated ACARA code |  | **Vertical resisted motion**ACMSM136 |
|  |  |  |  | **Projectiles and resisted motion**No associated ACARA code |