Mathematics

The NESA website contains information on the [NSW Mathematics K-10 Syllabus](#) and the [NSW Mathematics Stage 6 Year 11-12 Syllabus](#).

In high school, the syllabus stages correspond to the following year groups.

Stage 4 (Year 7 and Year 8)

By the end of Stage 4, students use mathematical terminology, algebraic notation, diagrams, text and tables to communicate mathematical ideas, and link concepts and processes within and between mathematical contexts.

Stage 5 (Year 9 and Year 10)

The arrangement of content in Stage 5 acknowledges the wide range of achievement of students in Mathematics by the time they reach the end of Year 8. Three substages of Stage 5 have been identified and made explicit in the syllabus:

- Stage 5.1 is designed to assist in meeting the needs of students who are continuing to work towards the achievement of Stage 4 outcomes when they enter Year 9
- Stage 5.2 builds on the content of Stage 5.1 and is designed to assist in meeting the needs of students who have achieved Stage 4 outcomes, generally by the end of Year 8
- Stage 5.3 builds on the content of Stage 5.2 and is designed to assist in meeting the needs of students who have achieved Stage 4 outcomes before the end of Year 8.

A large variety of 'endpoints' is possible in Stage 5. For example, some students may achieve all of the Stage 5.2 outcomes and a selection of the Stage 5.3 outcomes by the end of Year 10.

Stage 6 (Year 11 and Year 12)

The new Mathematics Advanced and Extension 1 syllabuses will be taught to Year 11 for the first time in 2019 and will be examined in the 2020 HSC.

The NSW HSC Mathematics course options are:

Year 11	Year 12
No mathematics	No mathematics
Mathematics Standard 1 or Mathematics Standard 2	Mathematics Standard 1 or Mathematics Standard 2
Mathematics Advanced	Mathematics Advanced
Mathematics Advanced and Mathematics Extension1	Mathematics Advanced and Mathematics Extension 1
Mathematics Advanced and Mathematics Extension 1	Mathematics Advanced and Mathematics Extension 1 and Mathematics Extension 2

Students intending to go to university to study any kind of STEM degree (Science, Technology, Engineering, Mathematics) should choose, if capable, Mathematics Advanced and are strongly advised to include Mathematics Extension 1 in Years 11 and 12 and if possible Mathematics Extension 2 in Year 12. Students aiming to study STEM degrees and degrees which include STEM subjects (such as economics, psychology and commerce), are advised to choose the highest level of mathematics in Years 11 and 12 of which they might be capable.