

What is Mathematics Specialist?

The Mathematics Specialist ATAR course has been designed to be taken in conjunction with the Mathematical Methods ATAR course. The course provides opportunities, beyond those presented in the Mathematics Methods ATAR course, to develop rigorous mathematical arguments and proofs and to use mathematical and statistical models more extensively.

How will Mathematics Specialist help me in the future?

The course considerably broadens students' mathematical experience and therefore begins an awakening to the breadth and utility of the course. They also enable students to increase their mathematical flexibility and versatility. The Mathematics Specialist ATAR course is designed for students with a strong interest in mathematics, including those intending to study mathematics, statistics, all sciences and associated fields, economics or engineering at university.

What careers can Mathematics Specialist lead to?

Mathematics Specialist can prepare students for a range of careers in Mathematics, Engineering, Actuarial Science & Finance, Cyber Security & Cryptography, Computer Science, Physics, Economics, Statistician

What content will I study in Year 11 and Year 12?

Year 11	
Mathematics Specialist ATAR Unit 1: Students are introduced to the topics of vectors in the plane & combinatorics. The course extends students' studies in Geometry with a heavy focus on reasoning. All topics develop students' ability to construct mathematical arguments.	Mathematics Specialist ATAR Unit 2 Students are introduced to Matrices & their applications to linear transformations of the plane.. Real and complex numbers provides a continuation of students' study of numbers. This topic also contains a section on proof by mathematical induction. Students will study trigonometry skills to be used in latter topics.
Year 12	
Mathematics Specialist ATAR Unit 3: In this unit students extend their understanding of topics studied in previous units – polar form of Complex numbers are introduced, Vectors concepts are extended into 3D space, and Function and calculus techniques studied in Mathematics Methods are utilised in sketching of graphs.	Mathematics Specialist ATAR Unit 4: In this unit, the study of differentiation and integration of functions is continued. The techniques developed from this and previous topics in calculus are applied to the area of simple differential equations, in particular in biology and kinematics. Also in this unit, all of the students' previous experience in statistics is drawn together in the study of the distribution of sample means.

Where can I find out more?

https://senior-secondary.scsa.wa.edu.au/_data/assets/pdf_file/0011/576884/Mathematics-Specialist-Y11-Syllabus-AC-ATAR-2020-GD.pdf

You can also talk to:

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