

### What is Mathematics Applications?

This course focuses on the use of mathematics to solve problems in contexts that involve financial modelling, geometric and trigonometric analysis, graphical and network analysis, and growth and decay in sequences. It also provides opportunities for students to develop systematic strategies based on the statistical investigation process for answering statistical questions that involve analysing univariate and bivariate data, including time series data.

### How will Mathematics Applications help me in the future?

The Mathematics Applications ATAR course is designed for students who want to extend their mathematical skills beyond Year 10 level, but whose future studies or employment pathways do not require knowledge of calculus. The course is designed for students who have a wide range of educational and employment aspirations, including continuing their studies at university or TAFE.

### What careers can Mathematics Applications lead to?

Town Planning, Surveying, Accountant, Teaching, Nursing, Archaeology, Forensics, Finance, Computing, Politics, Lawyer, Psychologist, Biologist, Electrical Trades. Marketing,

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

Year 11	
<b>Mathematics Applications Unit 1</b> Contains the three topics: <i>Consumer Arithmetic</i> reviews the concepts of rate and percentage change in the context of earning and managing money. <i>Algebra and Matrices</i> continues the study of algebra and introduces the topic of matrices. <i>Shape and Measurement</i> builds on and extends the knowledge and skills students developed in the with the concept of similarity and associated calculations involving simple geometric shapes.	<b>Mathematics Applications Unit 2</b> This unit has three topics: 'Univariate data analysis and the statistical process', 'Linear equations and their graphs', and 'Applications of trigonometry'. Students will understand the concepts and techniques used, and apply reasoning skills to solve practical problems.
Year 12	
<b>Mathematics Applications Unit 3:</b> Students will study the three topics Bivariate data analysis, Growth & decay in sequences, And Graphs and networks. They will understand the concepts and techniques used in these topics. apply reasoning skills and solve practical problems	<b>Mathematics Applications Unit 4:</b> Students continue their study of statistics by introducing them to the concepts and techniques of time series analysis. The course aims to provide students with sufficient knowledge of financial mathematics to solve practical problems associated with borrowing and making investments. The study of networks is extended to model and aid decision making in practical situations.

### Where can I find out more?

[https://senior-secondary.scsa.wa.edu.au/data/assets/pdf\\_file/0011/576875/Mathematics-Applications-Y11-Syllabus-AC-ATAR-2020-GD.pdf](https://senior-secondary.scsa.wa.edu.au/data/assets/pdf_file/0011/576875/Mathematics-Applications-Y11-Syllabus-AC-ATAR-2020-GD.pdf)

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