

Mathematical Applications T

Rationale

'Mathematics is the study of order, relation and pattern. From its origins in counting and measuring it has evolved in highly sophisticated and elegant ways to become the language now used to describe many aspects of the world in the twenty-first century. Statistics is concerned with collecting, analysing, modelling and interpreting data in order to investigate and understand real world phenomena and solve practical problems in context. Together, mathematics and statistics provide a framework for thinking and a means of communication that is powerful, logical, concise and precise.

Curriculum

ISS offers the Australian Curriculum Mathematical Applications T. Prerequisites for entry would be completion of Mathematics at Year 10 level.

'Mathematical Applications T Type 2 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.

Mathematical Applications is organised into four units. The topics in each unit broaden students' mathematical experience and provide different scenarios for incorporating mathematical arguments and problem solving. The units provide a blending of algebraic, geometric and statistical thinking. In this subject there is a progression of content, applications, level of sophistication and abstraction.'

In any one year the choice of the topics may change as there is flexibility in the program that will allow this.

Where does it lead to?

Mathematical Applications is designed for those 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 subject is designed for students who have a wide range of educational and employment aspirations, including continuing their studies at university or TAFE.'

The emphasis throughout on the use and application of digital technologies further aims to prepare students for a range of employment opportunities.

1. BSSS, AC Mathematical Applications T, 2015