

Mathematics: applications and interpretation at a glance

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modelling. To give this understanding a firm base, this course also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics.

The course makes extensive use of technology to allow students to explore and construct mathematical models. Mathematics: applications and interpretation will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures.

Students who choose this subject at Standard (SL) or Higher Level (HL) should enjoy seeing mathematics used in real-world contexts and to solve real-world problems. Students who wish to take Mathematics: applications and interpretation at HL will have good algebraic skills and experience of solving real-world problems. They will be students who get pleasure and satisfaction when exploring challenging problems and who are comfortable undertaking this exploration using technology.

This course is suitable for students who may go on to further study in subjects that utilise mathematics in this way such as social sciences, natural sciences, statistics, business, psychology or design.

The five topics below are covered during the SL course – each of these topics has sub-topics.

- Number and Algebra
- Functions
- Geometry and Trigonometry
- Probability and Statistics
- Calculus