

# IB Mathematics

All courses were completely revised from September 2019

## Syllabus Content

**Mathematics Standard Level: Applications and Interpretations (AI SL)** recognises 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. It is a course designed to build confidence and encourage an appreciation in students who may need statistics in their future studies, or whose main interests lie outside the field of mathematics. The course makes extensive use of technology to allow students to explore and construct mathematical models. It is designed for those wishing to extend their GCSE to the wider skills of applying their knowledge and builds on the fundamental skills and knowledge acquired at GCSE. It would suit students who will be pursuing subjects such as Social Sciences, Humanities, Languages, Arts and those which involve the use of statistical and/or logical reasoning.

**Mathematics Standard Level: Approaches and Analysis (AA SL)** is a course designed for those students who are comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns. They should be confident about applying GCSE techniques correctly. The majority of these students will need good mathematical skills in other subject areas and a strong mathematical background for their university course but any student who is good at and enjoys mathematics will benefit from the AA SL course. It would suit students who will be pursuing subjects such as Chemistry and Economics.

**Mathematics Higher Level: Approaches and Analysis (AA HL)** is very demanding and aimed at those who have exhibited a high level of competence in applying GCSE Mathematics techniques correctly. Mathematics HL compares with that of A level Further Mathematics in difficulty. HL students will have strong algebraic skills and the ability to understand simple proof. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems. Students considering taking the course should be guided by their GCSE Mathematics teacher. It would suit students who will be pursuing subjects such as Mathematics, Computer Science, Physics, Engineering and some Economics courses at University.

## Assessment

The final grade awarded is assessed through an external examination of 2 papers (3 for HL) and an internally assessed, externally moderated, piece of coursework which comprises 20% of the final grade. The external examination is sat in May of UVI. All courses make use of a graphing display calculator. Both Mathematics SL AA and HL AA have one paper that is non-calculator whereas a calculator is required in both papers for Mathematics SL AI. For all

courses, the internal assessment is an individual piece of work which is a mathematical exploration. The exploration will be supported through the development of a toolkit of mathematical skills for investigating, problem solving and modelling.