Mathematics

There are three levels of mathematics in the IB Programme. At our school mathematics is taught, according to the requirements of students, on the first two levels.

Mathematics - HL: the core is at the corresponding level to the grammar schools where they, apart from the maths lessons, teach also extensional maths courses (seminars). In the first year, number and algebra, functions, trigonometry, equations and inequalities, are revised at the beginning. Subsequently complex numbers, logarithms, vector geometry and calculus follow. In the second year there are integrals, matrices and transformations, statistics and probability taught. Students chose one of the options afterwards: Statistics, Sets, relations and groups, Discrete mathematics, Analysis and approximation, Euclidean geometry and Conic sections.

Options are a demanding part of a curriculum and hence prepares a student for theoretical sciences.

Mathematics - Mathematical Methods SL, is approximately at the corresponding level to the maths at grammar schools. In the first year, functions, equations and trigonometry, are revised at the beginning. Subsequently vector geometry and calculus follows. In the second year, integral calculus, statistics and probability, is taught. Students chose one of the options afterwards: geometry and matrices, calculus or statistical methods. Options provide a material that is demanding a little more then a curriculum in Slovak schools.

After experiencing this level a student is capable to undergo the maths entrance exams at any university successfully.

Mathematics - Studies level SL, has not been taught in our school yet. It is targeted to broaden the topics that are taught in the first three years in the Slovak national curriculum. It includes mathematical applications – sets, logic, probability and solving of practical problems.

It is intended for students who are not going to study mathematics at a university.

Mathematics HL – higher level
Core:
° Number and Algebra
° Functions and Equations
° Circular Functions and Trigonometry
° Vector Geometry
° Matrices and Transformations
° Statistics
° Probability
° Calculus

Options:
° Statistics
° Sets, Relations and Groups
° Discrete Mathematics
° Analysis and Approximation
° Euclidean Geometry and Conic Sections

Maths Methods SL – standard level
Core:
° Number and Algebra
° Functions and Equations
° Circular Functions and Trigonometry
° Vector Geometry
° Statistic
° Calculus

Options:
° Statistics
° Analysis
° Vector Geometry and Matrices

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