IB DIPLOMA PROGRAMME MATHEMATICS COURSES

THIS INFORMATION WILL BE UPDATED DURING SPRING 2019!

Mathematical studies are compulsory within the IB Diploma programme (group 5). The mathematics courses are: (i) Applications and interpretation, and (ii) Analysis and approaches. Both courses can be studied either on standard level (SL) or higher level (HL).

All courses include the same topics: number and algebra, functions, geometry and trigonometry, statistics and probability, and calculus. However, there is a substantial difference in difficulty between SL and HL.

Assessment in all courses is by written exam papers at the end of the program together with an internal assessment. The exam papers are 80% of the grade and internal assessment is 20%. The internal assessment consists of an individual written exploration.

MATHEMATICS: APPLICATIONS AND INTERPRETATION SL

This course has an emphasis on applications of mathematics. You get to learn how to use statistical methods and probability calculations in financial applications of mathematics, but also about geometry, mathematical functions and basic calculus.

The course is designed to prepare the students for a career in social sciences, humanities, languages or art.

Entry Requirements

The course is open for all students accepted to the Diploma Program at Katedralskolan Lund. A student at the pre diploma year at Katedralskolan has to achieve a 4 in Mathematics in order to be legible to start the Diploma Program.

MATHEMATICS: APPLICATIONS AND INTERPRETATION HL

This course is for those who already possess a good knowledge of the basic concepts and know how to apply mathematical techniques correctly. It has an emphasis on deep understanding of statistical methods, but also on understanding and using a variety of concepts from calculus and algebra on a higher level. All the understanding is aiming at an ability to use the right mathematical models for describing real life situations and for solving practical problems.

The course is designed to prepare students who will go on to study subjects such as social sciences, natural sciences, statistics, business, some economics, psychology, and design, for example.

Entry Requirements

The course is open for all students accepted to the Diploma Programme at Katedralskolan. However, we recommend that a candidate for the diploma programme should achieve the grade 7 in mathematics during the preparatory year in order to enter the course.
MATHEMATICS: ANALYSIS AND APPROACHES SL

Mathematics can be seen both as an abstract system of ideas, a body of knowledge, or as a useful tool. Mathematics: analysis and approaches SL is a course for those who already possess a more than rudimentary knowledge of the basic concepts, and know how to apply simple mathematical techniques correctly.

The course introduces important mathematical concepts through the development of mathematical techniques. The focus is not on rigorous proofs, but rather on how to apply methods and techniques on pure mathematical and/or realistic problems – focus is on application of mathematical knowledge.

The course is designed to prepare the students for a career in for example chemistry, economics, psychology and business administration.

Entry Requirements
The course is open for all students accepted to the Diploma Program at Katedralskolan Lund. We recommend that a student at the pre diploma year at Katedralskolan should achieve at least grade 5 in Mathematics in order to enter the course.

MATHEMATICS: ANALYSIS AND APPROACHES HL

Mathematics: Analysis and approaches HL is a course for those who already possess a good knowledge of the basic concepts, and know how to apply mathematical techniques correctly, and that have a passionate urge to further develop a deeper understanding of the nature of mathematics.

The course introduces important mathematical concepts together with the development of mathematical methods. The focus is both on rigorous proofs and on applying methods and techniques on pure mathematical and/or realistic problems.

The course is designed to prepare the students for a career in for example engineering, physics and mathematics.

Entry Requirements
The course is open for all students accepted to the Diploma Programme at Katedralskolan. However, we recommend that a candidate for the diploma programme should achieve the grade 7 in mathematics during the preparatory year in order to enter the course.