

COURSE TITLE: IB Math Studies

Level of Difficulty	Estimated Homework	Prerequisites
Moderate	30-60 minutes	District: Full-Diploma Student Department Suggestion: Full-Diploma Student

Course Description:

IB Math Studies focuses on important mathematical topics that are interconnected. The syllabus is organized and structured with the following tenets in mind: placing more emphasis on student understanding of fundamental concepts than on symbolic manipulation and complex manipulative skills; giving greater emphasis to developing students' mathematical reasoning rather than performing routine operations; solving mathematical problems embedded in a wide range of contexts; using the calculator effectively.

Math Studies, available as a standard level (SL) subject only, caters to students with varied backgrounds and abilities. The students most likely to select this course are those whose main interests lie outside the field of mathematics. All parts of the syllabus have therefore been carefully selected to ensure that an approach starting from first principles can be used. As a consequence, students can use their own inherent, logical thinking skills and do not need to rely on standard algorithms and remembered formulae. The nature of mathematical studies is such that it concentrates on mathematics which can be applied to contexts related as far as possible to other curriculum subjects and real-world situations.

IB Math Studies

The course consists of the study of eight topics.

Topic 1—Number and algebra

Topic 2—Descriptives

Topic 3—Sets, logic and probability

Topic 4—Statistical Applications

Topic 5—Geometry and trigonometry

Topic 6—Mathematical Models

Topic 7—Introductory differential calculus

Topic 8—Financial mathematics

Project 20 hrs

The Internal Assessment project provides an opportunity for the student to undertake an investigation of a mathematical nature in the context of another subject in the curriculum, a hobby or interest of his/her choice using skills learned before and during the mathematical studies course. The project is an individual piece of work involving the collection of information or the generation of measurements, and the analysis and evaluation of the information or measurements.

Grading:

See instructor syllabi below.

Syllabus:

<https://drive.google.com/file/d/0BwtfRFXZAUoea3I4SIRITEU1NE0/view?usp=sharing>

Some aspect of the syllabus may be modified from year to year at the discretion of the instructor.

Supplemental Information:

UC subject area "c"

Materials: Graphing calculator [TI-83 or 84 preferred]