

**Welcome to the
IB Standard Level Year 2 course
at Sturgis Public Charter School**

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Purpose of Course

The IBO (International Baccalaureate Organization) describes the importance of mathematics as follows:

“mathematical knowledge provides an important key to understanding the world in which we live.”

The IBO describes Standard Level Math in this way:

“This course caters for students who already possess knowledge of basic mathematical concepts, and who are equipped with the skills needed to apply simple mathematical techniques correctly. The majority of these students will expect to need a sound mathematical background as they prepare for future studies in subjects such as chemistry, economics, psychology and business administration.”

At Sturgis, Standard Level Year 2 will continue the work of Standard Level Year 1, providing students with mastery of skills and understanding of the IB Standard Level Curriculum, for the purposes described above.

My Beliefs

- Math explains our world in an exciting and unique way
- Learning the material in this course thoroughly will open many, many doors in your future

Some Essential questions

- In how many ways can we understand each math concept we explore?
- Is math important for its own sake or only for its many practical uses?

Some Areas of Knowledge Questions

- Do the laws of nature follow the absolute rules of mathematics, or have we chosen our rules of mathematics in order to describe nature?
- Is it possible to imagine a universe where the rules of math are different than ours?

Course Objectives

The course is designed to help students master the IB SL Math Curriculum.

Another objective is to help students develop skills to acquire knowledge independently, in preparation for university courses.

We seek to enhance student appreciation of the beauty and utility and fun of mathematics.

Teaching Strategies

Activities will include group and individual presentations of solutions to homework problems at the white board, discussion of I.B. questions from past exams, explorations and projects using Geogebra software, written work, games, and experiments.

Instruction will include multimedia presentations, lectures using the white board, homework review, demonstrations of solving I.B. questions, and reading assignments.

Resources

Students will need a three ring binder (3-4 inch spines) with notebook paper, 5 dividers with labels, and graph paper.

Students are expected to bring pens and pencils, straight-edge, programming calculator, textbook, and 3 ring binder with notebook paper to every class.

Please make sure you have labeled your calculator with the etcher (see Mr. Carspecken or Ms. Pontes) or an indelible marker.

The textbook is the same as the one for IB SL Year 1: Mathematics for the International Student, Mathematics SL Second Edition, published by Haese and Harris. CD versions will be available for your home computer so you can leave the textbook in your locker (suggestion: keep it locked) to avoid transporting it back and forth.

Assessment

Grades will be based on unit tests and quizzes and Internal Assessments (in conformance with IB requirements) to demonstrate mastery of the material, as well as notebook checks to demonstrate effort in the form of notes, lab write-ups, and completed homework assignments.

Students will be expected to show all work performed to provide an answer to exam questions and will be graded on the quality of the work shown as well as the accuracy of the answer. Students will also be expected to check their work during exams. Notebooks (binders) are expected to include all required homework and labs/IA's in the proper sections.

80% of your quarter grades will be based on Tests and Quizzes and Internal Assessments, with 20% based on participation and notebooks. The mock IB exam will be given in early April and will count as a final exam.

Here's to the enjoyment of Math learning during the coming school year...