IB Math Higher Level

Syllabus

Fall 2012

**Instructor:** Chris Orlando

**Email address:** Christopher\_Orlando@mcpsmd.org

\**I am available for help after school on Tuesdays, Wednesdays, and Thursdays in room C107.*

**Text:** Mathematics for the international student; Haese & Harris

**Grades:** Homework assignments and grades will be posted on Edline. You can set up an account by following the instructions listed on the website: https://www.edline.net/help/pdf/StudentParentGuide.pdf

**Grading and Assessment:**

Your grade in this course will be determined by the following:

**1. Tests** – One test about every two weeks.

**2. Internal Assessments** – At least two given by February 2012. *(20 points each)* ***One of these will count as your midterm grade and the other as your final exam grade!!***

**3. Quizzes** – One or two per topic. *(Approximately 30-50 points each)*

**4.** **Homework Checks** – Homework checks will be done once or twice each week and will be done in one of two ways. 1) You will need to keep your homework notebook organized as you will be given a small amount of time to find and copy a couple of problems chosen at random onto a homework check sheet. 2) I will walk around the class and take a brief look at your homework. *(5 points each)*

The use of a calculator (TI-83 preferred) and a formulae booklet and statistical table will be allowed on most assignments and tests in accordance with the International Baccalaureate regulations.

Only quizzes will be able to be reassessed. Any assignment on which you earn below 25%, a score of zero will be recorder rather than 50%. This is according to the MCPS Grading and Reporting policy which states:

*If a teacher determines the student did not attempt to meet the basic requirements of the task/assessment, the teacher may assign a zero.* The 25% mentioned above has been set by the B-CC Math Department.

The IB Mathematics Higher Level Portfolio will consist of a collection of your **two** best assignments completed throughout the year. The assignments will be based on different areas of the syllabus and represent both mathematical investigations and mathematical modeling. More details concerning these assignments will be given at a later date and will contain the markscheme.

**Class Expectations:**

* You should bring paper, pencil, textbook, and a calculator to class every day (TI-83 preferred).
* There will be no food or drinks allowed in class (bottled water is okay).
* If you are absent the day of a test, you will be required to take the test the day you return to school. If you are absent the day before the test, you will still be required to take the test upon returning to school. It is your responsibility to contact another student to receive any review information.

# Academic Dishonesty

This applies to both written work and oral presentations. Examples of academic dishonesty include, but are not limited to, the following: the willful giving or receiving of an unauthorized text, unfair, dishonest, or unscrupulous advantage in academic work over other students using fraud, duress, deception, theft, trickery, talking, signs, gestures, copying, or any other methodology.

**Topics**

I. Algebra

II. Functions and Equations

III. Circular Functions and trigonometry

IV. Matrices

V. Vectors

VI. Statistics and Probability

VII. Calculus

Option: Series and Differential Equations

**Order of topics:**

Chapter 13 Matrices

Chapter 14 Vectors

Chapter 7 Complex Numbers and Polynomials

Chapter 15 Complex Numbers

Chapter 16 Lines and Planes in 3-D

Chapter 9 Mathematical Induction

Chapter 8 Counting and Binomial Expansion

Chapter 17 Descriptive Statistics

Chapter 18 Probability

Chapter 28 Statistical Distributions of Discrete Random Variables

Chapter 29 Statistical Distributions of Continuous Random Variables

Chapter 10 (Options) Series and Differential Equations