IB Mathematical Studies SL
Course Information 2019 – 2020

Teacher:

Mr. Kyle Prior   **Room 0180**   kprior@mulgrave.com

Mathematical Studies Standard Level is a two-year IB course where students build their mathematical skill set in preparation for further studies at the post-secondary level in Arts and Humanities. The emphasis in this course is on developing students' abilities to analyze situations, apply strategies, critically evaluate their technique and communicate logically. Graphic display calculators, software and other technologies are used extensively as students investigate mathematical ideas.

Textbook:

Mathematics for the international student: Mathematical Studies SL 3nd Ed, (Coad et al., 2012)

Course Content:

This course will cover the following topics over two years. Please note that the order of the topics may change, depending on the needs of the class.

Grade 11 Year 1:

Term 1
- Number and Measurement
- Algebra and Equations
- Coordinate Geometry
- Quadratic Algebra

Term 2
- Functions and Quadratic Functions
- Geometry

Term 3
- Trigonometry
- Descriptive Statistics
- Two Variable Statistics

Grade 12 Year 2:

Term 1
- Sequences and Series
- Financial Mathematics
- Differential Calculus
- Trigonometric Functions

Term 2
- Exponential Functions
- Unfamiliar Functions
- Sets, Probability, Logic
- Examination Review

Students are strongly advised to keep their notes and pasts tests and quizzes from the entire two-year course well organised in a separate subject binder for preparation for the IB Exam in May 2014.

IB Assessment Criteria:

Grading for Each Term:

Students are assessed using the IB grade descriptors prescribed for this subject. In line with the marks scheme used by IB, students will be assessed on a scale of one (minimum) to seven (maximum.) The seven point scale is defined by IB as follows:

7	Excellent	2	Poor
6	Very Good	1	Very Poor
5	Good		
4	Satisfactory		

3   Mediocre

External Assessment (80%) in **Year 2**

There are two written examination papers written at the end of Year 2, in May:

Paper 1   **1.5 hours** (40%)
       15 compulsory short-answer questions - calculators allowed

Paper 2   **1.5 hours** (40%)
       6 compulsory extended-response questions - calculators allowed

Internal Assessment (20%) in **Year 2**

The Internal Assessment for Math Studies is a mathematical investigation conceived and conducted by each student, and submitted in the Grade 12 year as a detailed research paper. Students are required to communicate in correct mathematical language and to employ appropriate basic and sophisticated mathematics procedures accurately. This substantive assignment is internally assessed by the teacher and externally moderated by the IBO.

Honour Expectations:

Students are expected to be honest at all times. Any cheating that is detected on tests, quizzes, exams, or graded assignments will result in a score of 0. Students are encouraged to work in small groups on homework. However, a student who simply copies another's work will receive no credit.

Cheating is a serious violation of the Mulgrave Code of Conduct. It is a deliberate act of dishonesty in school work, tests and other assessments, and includes receiving and supplying unauthorised assistance, materials or other aids in any school work, assignment or test.

Plagiarism is a special kind of cheating equivalent to academic theft. It involves the unauthorised use of other people's ideas and can take the following forms:
1. taking a passage directly from a book, Internet site or any other source without giving appropriate credit or following proper citation practices;
2. paraphrasing a passage from another person's work without giving appropriate credit or following proper citation practices;

3. submitting previously graded work, or the work of a current or past student of Mulgrave or another school, without giving appropriate credit or following proper citation practices;
4. getting assistance on school work from others (such as a tutor or parent) in a manner that goes beyond reasonable limits or limits noted by the teacher, such that the authenticity of the student's work comes into question;
5. copying another student's work when independent work was expected by the teacher.

Students found guilty of cheating or plagiarism will be subject to serious consequences as outlined in the Mulgrave Handbook.

Late Work and Missed School Work Policies

Students are responsible for all missed school work. Arrangements must be made with the individual teacher before a known absence (i.e. sports event or doctor's appointment) and on the first day back after an illness.

Homework:

Homework will be assigned regularly and is to be completed on the same day it is assigned. It will be discussed at the **beginning** of the following class and any problems or questions students may have will be taken care of then. Students are expected to attempt every problem, keep track of their questions, and correct their own work using a coloured pen. Students are expected to be independent with their own homework. If needed, homework may be assigned an achievement level based on completeness as follows: 0 – Not completed, 1 – Incomplete, not checked, and/or not corrected, 2 – Complete, checked, and corrected. Homework completion will contribute to each student's effort marks. PTT Quizzes will be based on homework questions!!

Classroom Expectations:

- Students are expected to be prepared for their math class. Students must:
    - Come to class on time and be seated at the start of class.
    - Bring all materials (laptop, binder, mm graph paper, digital textbook, graphing calculator, writing tools, ruler).
- Students are expected to contribute positively to the atmosphere of the classroom. They should be courteous, cooperative, and respectful to others.
- Appropriate, on task, use of the laptop is expected at all times.
- Eating and drinking (with the exception of water) are not allowed in class.
- Cell phones should never be seen or heard at any time.

Math Help:

Math Help is available in room 0180 at lunch Monday to Thursday, or by special appointment with the teacher. Students are encouraged to come and ask questions or work on their homework.