



IB Mathematics SL 11

Course Information 2018 – 2019

Teachers

Dr. Darren McDonald	Room 0181	dmcdonald@mulgrave.com
Dr. Michael Frewin	Room 0182	mfrewin@mulgrave.com
Mr. Kyle Prior	Room 0180	kprior@mulgrave.com
Mr. Rob Eakin	Room 2026	reakin@mulgrave.com

Mathematics Standard Level is a two-year IB course where students build their mathematical skill set in preparation for further studies at the postsecondary level in Sciences and Commerce. The emphasis in this course is on developing students' abilities to analyse situations, apply strategies, critically evaluate their technique and communicate logically. Graphing calculators, software and other technologies are used extensively as students investigate mathematical ideas.

Textbook

Mathematics for the international student: Mathematics SL 3rd Ed. (Haese, 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

- Quadratics (covered)
- Functions
- Exponentials
- Logarithms
- Transforming Functions
- Sequences and Series

Term 2

- The Binomial Expansion
- The Unit Circle and Radian Measure
- Non-Right Angled Triangle Trigonometry
- Trigonometric Functions
- Trigonometric Equations and Identities
- Vectors and Application

Grade 12 Year 2:

Term 1

- Differential Calculus
- Integration
- Statistics

Term 2

- Linear Modelling
- Probability
- Examination review

Students are strongly advised to keep their notes and past tests and quizzes from the entire two-year course well organised in a separate subject binder for preparation for the IB Exam in May 2019.

IB Assessment Criteria

External Assessment (80%)

There are two written examination papers written at the end of Year 2, in May 2019:

Paper 1 1.5 hours (40%)

short-response and extended-response questions – no calculator

Paper 2 1.5 hours (40%)

short-response and extended-response questions – calculator permitted

Internal Assessment (20%)

The internally assessed component, the exploration, offers students the opportunity for developing independence in their mathematical learning. Students are encouraged to take a considered approach to various mathematical activities and to explore different mathematical ideas. The exploration also allows students to work without the time constraints of a written examination and to develop the skills they need for communicating mathematical ideas. The exploration, which is completed during Term 1 of Grade 12, is internally assessed by the teacher and externally moderated by the IBO.

Grading

Students are assessed using the IB grade descriptors prescribed for this subject. In line with the markscheme 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		

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. Homework will be randomly checked by the teacher and an achievement level based on completeness will be recorded as follows: 0 – Not completed, 1 – Incomplete, not checked, and/or not corrected, 2 – Complete, checked, and corrected. These achievement levels will contribute to each student's effort marks.

Classroom Expectations

Students are expected to be prepared for their math class. Students must:

- Come to class on time and be seated at the bell.
- Bring all materials (laptop, binder, millimeter graph paper, digital textbook, graphics 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 are not allowed in class.

Math Help

Math Help is available in rooms 0180, 0181 and/or 0182 on Monday, Tuesday, Wednesday and Thursday at lunch, or by special appointment with the teacher. Students are encouraged to come and ask questions or work on their homework.