

IB Math Standard Level Year 2 Course Overview

Course Name: Math SL2 **Academic Term:** Year **Course Credit:** 1.0 with IB GPA bump
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Course Description: Math SL2 is the second year of a two year course. It caters to 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. Students in Year 2 should have successfully completed Year 1.

For more information, see the IB DP Subject Brief available at <http://www.desertacademy.org> under Curriculum. It is expected that students in Year 2 are already well versed in the Algebra & Functions, Trig, Statistics and Probability sections of the IB SL syllabus. We will focus primarily on topics 4 and 6 (Vectors & Calculus), while we will review and extend our understanding of the other topics.

Expected units of study for this course include:

Unit	Unit	Weeks	Quarter
Unit 1	Vectors	4	Q1
Unit 2	Vector Applications	2	Q1
Unit 3	Exploration	3	Q1
Unit 4	Limits	2	Q2
Unit 5	Derivatives	3	Q2
Unit 6	Curve Properties	2	Q2
Unit 7	Applications of Derivatives	2	Q3
Unit 8	Integration	3	Q3
Unit 9	Applications of Integration	4	Q3
Unit 10	Discrete Random Variables	2	Q3
Unit 11	Continuous Random Variables	2	Q4
Unit 12	IB Exam Preparation	4	Q4

Detailed content from each topic area and the exploration is given in the syllabus published by IB which is available on my website. **Students should download this and keep it for reference over the course of their study.**

Grading Policy: At the end of each semester students will be awarded an IB score from 1 to 7. A Desert letter grade will then be assigned according to the following mapping:

Excellent: 7 = A+/A Very Good: 6 = A/A- Good: 5 = B+/B Satisfactory: 4 = B-/C+ Acceptable: 3 = C/C- Poor 2 = D Very Poor: 1 = F

Course Specific Grading Policy: Individual tests and quizzes will be awarded an IB score from 1 to 7. Desert semester grades will be based on homework completion & problem presentations (~20%), homework quizzes & tests (~60%) and your Exploration (~20%).

Late work policy: Late homework receives no credit unless it is due to an excused absence or previous arrangement. Explorations will receive one mark deduction for each class meeting after the original due date until they are received.

Class Expectations: Expect to have nightly homework except after a major unit exam. Homework is due on the next class period after it is assigned. Students are expected to regularly present homework problems and engage in class discussion.

Texts & Resources:

- Primary text: **Haese & Harris:** (*Mathematics SL, Third Edition*). Students will be provided with a physical book and an electronic version upon request. A class set of books is available – students do not need to bring their books to school.
- <http://aleimath.blogspot.com> - My web page is updated regularly. It has homework assignments, class notes, and other resources. Bookmark it and use it regularly.

Supplies: Students are expected to bring the following materials to class **every day**.

- **Math Notebook:** Spiral bound, graph paper notebook. Available at Staples or through Mr. Alei for about \$3
- **3 Ring binder** or a section of one to organize handouts and submitted work that has been returned to you.
- **Graphing calculator.** (TI-84Plus or TI-nSpire (**non-CAS**) recommended). Note: If you borrow a school calculator on a regular basis you may be assessed a rental fee at the end of the year. The fee will be calculated by dividing the total replacement cost of lost or negligently damaged calculators by the number of regular borrowers. Note that this fee may apply **even if you return the calculator you borrowed in good working order.**
- **Pencils:** at least two with good erasers.

Please feel free to contact me with any questions or concerns.

For more information on Desert Academy's policies on Homework, Absences and Tardies, Technology Use, Dress Code and other areas of student life, please consult the Student/Parent Handbook, available on The Desert Academy website at <http://www.desertacademy.org>.