Mathematics (SL) 12 (2016-2017)

Time: 8 x 35 minutes per week

Course Description:
The final year of the IB Mathematics SL course covers topics including Statistics, Probability and Calculus. For mathematical exploration, students will continue investigating an area of mathematics. Graphical calculators are used extensively to help students in exploring mathematical concepts and in the development of their investigation. Students are prepared for the IB examinations which are held at the end of the academic year.

Resources:
Paul Fannon, Mathematics Standard Level for the IB Diploma, Cambridge University Press

Main Topics Covered:

Semester 1

- Mathematical Exploration
- Statistics and Probability
  - Concepts of population, sample random sample, discrete and continuous data
  - Presentation of data
  - Group data
  - Statistical measures and their interpretations
  - Central tendency
  - Quartiles, percentiles
  - Dispersion
  - Effect of constant changes to the original data
  - Application
  - Cumulative frequency
  - Linear correlation of bivariate data
  - Pearson's product
- Calculus
  - Informal Ideas of Limit
  - Derivatives
  - Maximum and Minimum Points
  - Indefinite and Definite Integral
  - Kinematic Problems

Semester 2

- Revision of the entire syllabus in preparation for the IBDP examinations

Assessment

Internal Assessment	Weighting
Semester 1:	
• Continual Assessment 1 (CA1)	20
• Continual Assessment 2 (CA2)	10
• Semester 1 Examination (SA1)	70
	100
Semester 2:	
• Continual Assessment 3 (CA3)	25
• Mock Examinations (SA2)	75
	100
NB. Three reports are distributed during the year. The first comprises CA1, the second CA2 and SA1 and the third CA3 and SA2.	
	100