

IB Math Applications & Interpretations SL Year 2 Subject Group Overview - Semester 1

Unit Name	Topic 4: Statistics & Probability	Topic 2: Functions
------------------	--	---------------------------

Time Frame	12 Weeks	4 Weeks *(will finish this topic during Semester 2)*
Standards/ IB Topics	Topic 1: AI SL 1.1, 1.6 Topic 4: AI SL 4.1 – 4.11	Topic 1: AI SL 1.2 - 1.4, 1.7 - 1.8 Topic 2 : AI SL 2.1 – 2.6
Content Specific Information	1.1 Operations with numbers, scientific notation 1.6 Approximation, significant figures, percentage error 4.1 Population, samples, outliers 4.2 Presentation of data, box-whisker plots, histograms 4.3 Measures of central tendency & dispersion 4.4 Linear Regression 4.5 Probability of Events 4.6 Probability diagrams, combined events, conditional probability, independent events 4.7 Discrete random variables and expected Value 4.8 Binomial distribution 4.9 Normal distribution 4.10 Spearman's rank correlation coefficient 4.11 Chi-squared test for independence and t-test	1.2 Arithmetic Sequences and series 1.3 Geometric Sequences and series 1.4 Financial Applications of Geometric Sequences 1.5 Laws of Exponents and logs 1.7 Amortization and annuities 1.8 Using technology to solve systems 2.1 Linear Equations, Parallel, Perpendicular Lines 2.2 Domain, Range, Inverses 2.3 Graphs of Functions 2.4 Key features of Graphs 2.5 Modeling with linear, quadratic, exponential, cubic, and sinusoidal function 2.6 Modeling with functions in real context
Common Assessments / Major Projects	Daily Assignments/Other formative assessments Summative Assessments	Daily Assignments/Other formative assessments Summative Assessments
Resources	My IB Resources (www.ibo.org) IB QuestionBank Mathematics: Applications and Interpretations SL, Pearson textbook/Hodder textbook/Oxford Textbook Teacher Resources	My IB Resources (www.ibo.org) IB QuestionBank Mathematics: Applications and Interpretations SL, Pearson textbook/Hodder textbook/Oxford Textbook Teacher Resources

IB Math Applications & Interpretations SL Year 2 Subject Group Overview - Semester 2

Unit Name	Topic 2: Functions (continued)	Topic 3: Geometry and trigonometry	Topic 5: Calculus	IB Exam review
Time Frame	4 Weeks *(in addition to previous semester)*	5 weeks	4 Weeks	3 Weeks
Standards/ IB Topics	Topic 2: AI SL 2.1 -2.6	Topic 3: AI SL 3.1 – 3.6	Topic 5: AI SL 5.1 – 5.8	All AI standards 1.1-5.8
Content Specific Information	2.1 Linear Equations, Parallel, Perpendicular Lines 2.2 Domain, Range, Inverses 2.3 Graphs of Functions 2.4 Key features of Graphs 2.5 Modeling with linear, quadratic, exponential, cubic, and sinusoidal function 2.6 Modeling with functions in real context	3.1 Distance, midpoint, volume, surface area in two and three dimensions 3.2 Sine, Cosine, Tangent Ratios, Sine Rule, Cosine Rule & Area of a Triangle 3.3 Right triangle trigonometry, angles of elevation and depression 3.4 The circle: arc length, sector area 3.5 Equations of perpendicular bisectors 3.6 Voronoi diagrams	5.1 Concept of limit, derivative as a gradient of a function and a rate of change 5.2 Increasing and decreasing functions 5.3 Derivative – power rule 5.4 Tangents and normal 5.5 Anti-differentiation, initial conditions, definite integrals as area 5.6 Derivative of zero, local maximums and minimums 5.7 Optimization 5.8 Trapezoidal rule	1.1-5.8
Common Assessments / Major Projects	Daily Assignments/Other formative assessments Summative Assessments	Daily Assignments/Other formative assessments Summative Assessments	Daily Assignments/Other formative assessments Summative Assessments	Mock IB Exam
Resources	My IB Resources (www.ibo.org) IB QuestionBank Mathematics: Applications and Interpretations SL, Pearson textbook/Hodder textbook/Oxford Textbook Teacher Resources	My IB Resources (www.ibo.org) IB QuestionBank Mathematics: Applications and Interpretations SL, Pearson textbook/Hodder textbook/Oxford Textbook Teacher Resources	My IB Resources (www.ibo.org) IB QuestionBank Mathematics: Applications and Interpretations SL, Pearson textbook/Hodder textbook/Oxford Textbook Teacher Resources	Past IB exams My IB Resources (www.ibo.org) IB QuestionBank Mathematics: Applications and Interpretations SL, Pearson textbook/Hodder textbook/Oxford Textbook Teacher Resources