

Subject: MATHEMATICS Applications and Interpretation	School year: 2023 / 2025	Class: Year 1 & 2
Level: Higher Level	Teacher: Mgr. Katarína Hribová, MA	

Year	Unit - Chapter	Approx. number of weeks	Approx. number of classes (45 min)
Year 1	1 – Ch 1 Measuring space: accuracy and 2D geometry	3	18
	2 – Ch 3 Dividing up space: coordinate geometry, Voronoi diagrams, vectors, lines	4	24
	3 – Ch 4 Modelling constant rates of change: linear functions	4	24
	4 – Ch 6 Modelling relationships with functions: power and polynomial functions	3	18
	5 – Ch 7 Modelling rates of change: exponential and logarithmic functions	4	24
	6 – Ch 8 Modelling periodic phenomena: trigonometric functions	3	18
	7 – Ch 9 Modelling with matrices: storing and analysing data	3	18
	8 – Ch 2 Representing and describing data: descriptive statistics	2,5	15
	9 – Ch 5 Quantifying uncertainty	2	12
	10 – Ch 16 Mathematical exploration	3,5	21
	TOTAL:	32	192
Year 2	11 – Ch 16 Mathematical exploration	2,5	15
	12 – Ch 13 Representing multiple outcomes: random variables and probability distributions	2	12
	13 – Ch 14 Testing for validity: Spearman's, hypothesis testing, χ^2 tests for independence	3,5	21
	14 – Ch 10 Analyzing rates of change: differential calculus	3	18
	15 – Ch 11 Approximating irregular spaces: integration	4	24
	16 – Ch 12 Modelling motion and change in two and three dimensions	3	18
	17 – Ch 15 Optimizing complex networks: graph theory	2,5	15
	Revision: exam style questions, Paper 1 practice, Paper 2 practice, Paper 3 practice	2,5	15
	TOTAL:	23	138

Textbook:

Oxford IB Diploma Programme: IB Mathematics: applications and interpretation, Higher Level; OUP 2019
(Authors: Jane Forrest, Paula Waldman, Jennifer Chang Wathall, Suzanne Doering, David Harris, Nadia Stoyanova Kennedy)

Use of calculators:

Students are expected to have access to a graphic display calculator (GDC) at all times during the course. We recommend using the Casio fx-CG50 but other graphic display calculators are acceptable so long as you know how to use it or learn to use it by reading its accompanying directions.