

**都立国際高校 年間授業計画 / Tokyo Metropolitan Kokusai High School Course Syllabus**

科目基礎情報 / Course information				
開講年度 / Academic year	令和4年度 / 2022年度			
開講学科 / Department	国際学科国際バカロレアコース / IBDP(International Baccalaureate Diploma Programme)			
教科 / Subject	Mathematics Analysis and Approaches Standard Level (DP1)			
科目 / Course Title	Mathematics Analysis and Approaches Standard Level (DP1)			
学年・クラス / Year・Class	DP1			
単位数 / credits	4			
科目概要情報 / Course description				
講座概要 / Course description	This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series.			
到達目標 / Course objectives	Enjoy mathematics and develop an appreciation of the elegance and power of mathematics. Develop an understanding of the principles and natures of mathematics, develop logical, critical and creative thinking. Employ and refine powers of abstraction and generalization.			
評価方法と評価基準 / Evaluation method and criteria	1. Knowledge and Understanding 2. Problem solving 3. Communication and Interpretation 4. Technology 5. Reasoning 6. Inquiry Approaches			
教科書 / Textbooks	Mathematics: Analysis and Approaches for the IB Diploma, Standard Level, Pearson			
校外学習 / Field trip				
授業計画 / Course schedule				
	指導項目 / Topic	指導内容 / Contents	評価の方法・基準 / Evaluation method and criteria	予定時数 / Alotted hours
1学期 / 1st semester	4月	Functions and their Graphs	Homeworks, Quizzes, Take-Home Assignments, Examinations	10
	5月	Reciprocal functions, rational functions.		4
		Exponentials and Logarithms		6
		Sequences and Series		6
		Binomial theorem		4
	6月	Applications of sequences and series		6
	7月	Trigonometric ratios and applications of right and non-right angled trigonometry		14
Trigonometric functions, equations and identities		8		
2学期 / 2nd semester	9月	Differential Calculus	Homeworks, Quizzes, Take-Home Assignments, Examinations	10
	10月	Integral Calculus		8
		Further Integral Calculus		18
	11月	Further Differential and Integral Calculus		12
	12月	Review and working on IA		12
3学期 / 3rd semester	1月	Basic Probability and Statistics	Homeworks, Quizzes, Take-Home Assignments, Examinations	10
	2月	Statistic and Probability		14
	3月	Further Statistics and Review		14