



Indraprastha College for Women University of Delhi

Work Plan for ODD SEMESTER – 2026

Course Name:	B.A. (Hons.) Economics
Paper Title:	Introductory Mathematical Methods for Economics
Unique Paper Code:	2272101102
Semester:	I
Faculty:	Ms. Gargee Sarkar
Year:	2026

Work Plan			
Unit No.	Learning Objective	Lecture No.	Topics to be Covered
I	Preliminaries	1-10	Logic and proof techniques; sets and set operations; relations; functions and their properties; number systems.
II	Functions of one real variable	11-36	Graphs; elementary types of functions: quadratic, polynomial, power, exponential, logarithmic; sequences and series: convergence, algebraic properties and applications; continuous functions: characterisation, properties with respect to various operations and applications; differentiable functions: characterisation, properties with respect to various operations and applications; second and higher order derivatives: properties and applications.
III	Single-variable optimization	37-45	Geometric properties of functions: convex functions, their characterisation and applications; local and global optima: geometric and calculus-based characterisation, applications.

Unit	Contents/Syllabus
I	Ref: Sydsaeter, K., Hammond, P. (2002). Mathematics for economic analysis. Pearson Education. (Chapter - 1)
II	Ref: Sydsaeter, K., Hammond, P. (2002). Mathematics for economic analysis. Pearson Education. (Chapter – 2 to 8)
III	Ref: Sydsaeter, K., Hammond, P. (2002). Mathematics for economic analysis. Pearson Education. (Chapter – 9)
S. No.	Name of Authors/Books/Publishers
1.	Sydsaeter, K., Hammond, P. (2002). Mathematics for economic analysis. Pearson Education.
2.	
3.	
4.	

Paper Components			
Credits	Lecture (L)	Tutorial (T)	Practical (P)
	3	3	0
Assessment Scheme			
S.No.	Component	Marking Scheme	Total Marks
1	Internal Assessment - Assignment - Class Test - Attendance		30
		12	
		12	
		6	
2.	Continuous Assessment (Tutorial)		40

	- Activity 1 - Activity 2 - Attendance	10	
		25	
		5	
3.	Practical - Continuous Assessment - End Term Written/Practical Exam - Viva		
4.	End Semester Examination		90