



Indraprastha College for Women University of Delhi

Work Plan for ODD SEMESTER – 2026

Course Name:	B.A. (H) Economics
Paper Title:	Advanced Mathematical Methods for Economics
Unique Paper Code:	2272102303
Semester:	III
Faculty:	Prof. Anindita Roy Saha
Year:	2026-27

Work Plan			
Unit No.	Learning Objective	Lecture No.	Topics to be Covered
1	Optimisation techniques with constraints as dealt in economic models	1	Optimization in Economics
		2	Lagrange multiplier method
		3	Mathematical applications
		4	Economic applications
		5	Kuhn-Tucker conditions
2	Linear programming as a technique for optimisation	6	Linear Programming
		7	Programming objectives
		8	Theory
		9	Applications
3	Different techniques of differential calculus as used often in economic models, estimation and forecasting	10	First order difference equations
		11	Second order difference equations
		12	First order differential equations
		13	Second order differential equations
		14	Integration
		15	Mathematical applications
		16	Economic applications

Unit	Contents/Syllabus
I	Multivariate Optimisation
II	Linear Programming
III	Integration, Differential and Difference Equations
S. No.	Name of Authors/Books/Publishers
1.	Sydsaeter, K., Hammond, P. (2002). <i>Mathematics for economic analysis</i> . Pearson Educational

Paper Components			
Credits	Lecture (L)	Tutorial (T)	Practical (P)
Assessment Scheme			
S.No.	Component	Marking Scheme	Total Marks
1	Internal Assessment		30
	• Assignment	12	
	• Class Test	12	
	• Attendance	6	
2.	Continuous Assessment (Tutorial)		40
	• Activity 1	20	
	• Activity 2	15	
	• Attendance	5	
3.	Practical	NA	
	• Continuous Assessment		
	• End Term Written/Practical Exam		
	• Viva		
4.	End Semester Examination		