



Indraprastha College for Women

University of Delhi

Work Plan for ODD SEMESTER –2026

Course Name:	B.A Programme (with Economics as Major)
Paper Title:	Optimization Methods for Economic Analysis
Unique Paper Code:	2272202302
Semester:	III
Faculty(s):	Dr. Sujayata Choudhry
Year:	2026

Work Plan			
Unit No.	Learning Objective	Lecture No.	Topics to be Covered
1.	Comparative-Static Analysis	Lecture 1-3	Rate of Change and the Derivative
		Lecture 4-5	The Derivative and the Slope of a Curve, The Concept of Limit
		Lecture 6-8	Limit Theorems, Continuity and Differentiability of a Function
		Lecture 9-11	Rules of Differentiation for a Function of One Variable
		Lecture 12	Rules of Differentiation Involving Functions of Different Variables
		Lecture 13-15	Partial Differentiation, Applications to Comparative-Static
2.	Differentials and its role in Comparative static analysis	Lecture 16-21	Differentials
		Lecture 22-30	Derivatives of Implicit Functions, Comparative Statics of General-Function Models
3.	Optimization Problems	Lecture 31-33	Unconstrained optimization
		Lecture 34-36	Unconstrained optimization
		Lecture 37-39	Constrained optimization

		Lecture 40-41	Quasiconcavity and Quasiconvexity
		Lecture 42-43	Lagrangian functions
		Lecture 44-45	Utility Maximization and Consumer Demand

Unit	Contents/Syllabus
I	Comparative-Static Analysis Derivatives, Slopes, Limit Theorem
II	Differentials and its role in Comparative static analysis Economic Applications
III	Optimisation Problems Unconstrained and constrained optimisation with single and multiple variables, Lagrangian functions, quasi- concavity and convexity, envelope theorem
S.No.	Name of Authors/Books/Publishers
1.	Chiang, A and Wainwright, K. Fundamental methods of mathematical economics. Boston, Mass. McGraw-Hill/Irwin (2005)

	Paper Components		
Credits	Lecture (L)	Tutorial (T)	Practical (P)
4	3	1	NA
Assessment Scheme			

S.No.	Component	Marking Scheme	Total Marks
1	Internal Assessment - Assignment/Quiz/Project/Presentation - ClassTest - Attendance		30
		12	
		12	
		6	
2.	Continuous Assessment (Tutorial) - Activity 1 - Activity 2 - Attendance		40
		20	
		15	
		5	
3.	Practical - Continuous Assessment - End Term Written/Practical Exam - Viva	NA	
4.	End Semester Examination		90