

Work Plan (Odd Semester 2026-27)

Teacher Name: Phunchok Dolker

Paper name: Optimization Methods for Economic Analysis

Class type: B.A. (Prog.) with Economics as Major (Sem-III)

Paper shared with: NA

Unit to be taken	Month wise schedule to be followed	Tests/Assignments/ Revision/Presentations etc
UNIT I: Comparative-Static Analysis (5 hours) Derivatives, Slopes, Limit Theorem Ref: Chiang, A and Wainwright, K. (2005). Fundamental methods of mathematical economics. Boston, Mass. McGraw-Hill/Irwin. (Chapters: 6)	August (1st week) - (3rd week) August	a. Internal Assessment (IA): 30 Marks ● Two class test (12 marks each), (Best of 3) ● 1st test - 4th Oct ● 2nd test- 2nd week of november ● 3rd test - last week of november ● 6 marks for attendance
UNIT II: Differentials and its role in Comparative static analysis (15 hours) Ref: Chiang, A and Wainwright, K. (2005). Fundamental methods of mathematical economics. Boston, Mass. McGraw-Hill/Irwin. (Chapters: 7 & 8)	August (4th week) - (4th week) September	b. Continuous Assessment (CA): 40 Marks ● Presentation and Viva- ● 35 Marks ● 5 marks for tutorial attendance -Revision and preparation Break -20th November -Examination- December

UNIT III: Optimisation Problems (25 hours) Unconstrained and constrained optimisation with single and multiple variables, Lagrangian functions, quasi- concavity and convexity, envelope theorem Ref: Chiang, A and Wainwright, K. (2005). Fundamental methods of mathematical economics. Boston, Mass. McGraw-Hill/Irwin. (Chapters: 9.1 to 9.4, 11 (except 11.4) & 12)	(1 week) October - (3rd Week) November	
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Books used:

- **Chiang, A and Wainwright, K. (2005).** Fundamental methods of mathematical economics. Boston, Mass. McGraw-Hill/Irwin.