Curriculum plan (Odd Semester 2024-25)

Teacher Name: Chetan Kumar

Paper name:Advanced Mathematical Methods for Economics – ECON009

Class type: BA (Hons) Economics Sem-3

Paper shared with: NA

Unit to be taken	Month wise schedule to be followed	Tests/Assignments/ Revision/Presentations etc
UNIT I: Multivariate Optimization with constraints (19 hours) Constrained optimisation with equality and inequality constraints: geometric characterisation,	August (Week 1-Week 4)	Internal Assessment (IA): 30 Marks ● Two class test (12 marks each), and ● 6 marks for attendance
UNIT I:Lagrange characterisation using calculus and applications; properties of value function: envelope theorem, applications.	September (Week 1)-(Week 2)	
UNIT II: Linear programming Introduction, graphical solution, matrix formulation, duality, economic interpretation.	September (Week 3)-(Week 4)	Continuous Assessment (CA): 40 Marks ● assignments will be periodically provided to the students 35 marks towards the overall assessment -5 marks for attendance
UNIT III: Definite integrals, indefinite integrals and economic applications; first order and second order difference equations, equilibrium and its stability;	October (Week 1 - 4)	
UNIT III first order differential equations, phase diagrams and stability; second order differential equations	November (Week 1-week 4)	

Readings

 1. Sydsaeter, K., Hammond, P. (2002). Mathematics for economic analysis. Pearson Educational.