

Curriculum Plan (Odd Semester 2026-27)

Teacher Name: Rachit Saini

Paper Name: Basic Mathematics for Economic Analysis

Class type: B.A. (Prog) Economics Major, Semester-I

Paper shared with: None

Unit	Month wise schedule to be followed	Tests/Assignments/Presentation/Revision etc.
Unit- 1 Economic Models	August (Week 1 – 3)	<u>Internal Assessment (IA)</u> 30 marks Two class tests (12 marks each), and 6 marks for attendance • Test 1 – September Week 2 • Test 2 – October Week 2 • Test 3 – November Week 2
1. Ingredients of mathematical models - variables, constants, parameters, equations, and identities; Real number system; Sets and functions; relations and their properties; types of functions; functions of more than one variable	August (Week 4) and September (Week 1)	
2. Limit, sequences, and series: convergence, algebraic properties, and applications;	September (Week 2-4)	
3. Continuous functions: characterization, properties with respect to various operations and applications; Differentiable functions: characterization, properties with respect to various operations and applications; second and higher order derivatives: properties and applications.		<u>Continuous Assessment (CA) 40 Marks</u> Overall Assessment (35 marks), and 5 marks for attendance • Assignment – September Week 3 • Quiz/Assignment – October Week 2 • Problem Set – November Week 1
Unit 2: Equilibrium Analysis in Economics Meaning of equilibrium; partial market equilibrium - linear and non-linear models; General market equilibrium	October (Week 1-2)	
Unit 3: Linear Models and Matrix Algebras and their Applications in Economics Matrix operations, Determinants, and Cramer's Rule and their applications	October (Week 2-4) and November (Week 1-2)	<u>Revision:</u> November – Week 3

References

1. Chiang, A. and Wainwright, K. (2005). Fundamental Methods of Mathematical Economics (4th ed.). McGraw Hill.
2. Sydsaeter, K. and Hammond, P. (2002). Mathematics for Economic Analysis. Pearson.