Department of Economics,
Delhi School of Economics
University of Delhi

Minutes of Meeting

Subject	:	B.A. (Prog.) with Economics as Major
Course	:	Basic Mathematics for Economic Analysis Econ021
Date	:	10th August, 2023 at 2.30 p.m.
Venue	:	Department of Economics
Chair	:	Dr. Sandip Datta/Dr. Sourav

The meeting was attended by the following teachers:

S.No.	Name	College
1	Shruti Sabharwal	Jesus and Mary College
2	Yogesh Malhotra	Sri Venkateswara College
3	Priyambada Gupta	Shyam Lal College
4	Anu Singh Deswal	Jesus and Mary College
5	Abhisheksingh	St stephens college
6	Nancy	PGDAVE college
7	Nikita Gupta	Shivaji College
8	Deepanshi Rajput	Janki Devi Memorial College
9	NEHA GROVER	Lady Shri Ram College For Women
10	Preeti Mann	Kamala Nehru College
11	Taramati	Zhdce
12	Anuj Goyal	Shaheed Bhagat Singh College

The meeting involved a comprehensive discussion of different aspects of the course itself, including teaching and the evaluation process for the current semester. The committee reached a consensus on the following points

1. **The syllabus, teaching hours and topic-wise reading references will be as follows:**

   Unit 1: Economic Models (20 hours)
   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;
   Reference: Chapter 2; Chiang, A and Wainwright, K. (2005).
   Limit, sequences, and series: convergence, algebraic properties, and applications;
   Reference: Chapter 6 (4.4,6.1,6.4,6.5,6.6); Sydsaeter, K., Hammond, P. (2002).
   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.

Reference: Chapter 6 (6.1,6.2); Sydsaeter, K., Hammond, P. (2002). Chapter 6, Chapter 7(7.1,7.2,7.3,7.5(only market model)); Chiang, A and Wainwright, K. (2005).

Unit 2: Equilibrium Analysis in Economics (7 hours)

Meaning of equilibrium; partial market equilibrium - linear and non-linear models; General market equilibrium

Reference: Chapter 3(3.1,3.2,3.3,3.4-deemphasize n-variable case & its solution); Chiang, and Wainwright, K. (2005).

Unit 3: Linear Models and Matrix Algebras and their Applications in Economics
Matrix operations, Determinants, and Cramer's Rule and their applications (18 hours)

Reference: Chapter 4(except 4.7), Chapter5(5.1-5.6(only market models)); Reference: Chapter 3(3.1,3.2,3.3,3.4-deemphasize n-variable case & its solution); Chiang, and Wainwright, K. (2005).

2. The teachers who participated in the meeting unanimously concur on the necessity of updating the textbook "*Fundamental Methods of Mathematical Economics*" with newer alternatives. Those in attendance have agreed to explore alternative textbooks that could potentially replace the current one. They will submit their recommendations by October 30th. However, any updates will only be implemented following an in-depth discussion with the teachers.

3. A diverse range of topics related to the evaluation process were extensively discussed. The assessment process comprises three distinct parts, and the ensuing pattern will be adhered to:

   a. Internal Assessment (IA):   30 Marks
      - Two class test (12 marks each), and
      - 6 marks for attendance
   b. Continuous Assessment (CA):   40 Marks
      - 1 Class test for 10 marks
      - At least 2 quizzes, adding up to total 25 marks.
      - 5 marks for attendance.
   c. The end semester exam: 90 Marks
      - There will be three Sections in the question paper with varying degrees of difficulty.
      - Question can be asked from any unit.
      - There will be only two sub-sections in each question, e.g. 2+8, 5+5, etc.
      - Section A: 40 Marks (4*10=40, Students will attempt any 4 out of 6)
      - Section B: 30 Marks (3*10=30, Students will attempt any 3 out of 4)
      - Section C: 20 Marks (2*10=20, Students will attempt any 2 out of 3)