

Department of Economics,
Delhi School of Economics
University of Delhi

Minutes of Meeting

Subject : B.A. (H) Economics
Course : Advanced Mathematical Methods for Economics – ECON009
Date : 10th August, 2023 at 12.00 noon
Venue : Department of Economics
Chair : Dr. Sandip Datta

The meeting was attended by the following teachers:

S.No.	Name	College
1	ROHIT	Shri Ram College of Commerce
2	Ankur Jain	Ramjas College
3	Gunjan Khandelwal	Shyam Lal College
4	Anurag Malhotra	St. Stephen's College
5	Jitesh Rana	Sri Guru Gobind Singh College of Commerce
6	Priyambada Gupta	Shyam Lal College
7	Yamini	Dr. Bhim Rao Ambedkar College
8	Anu Singh Deswal	Jesus and Mary College
9	Anu Singh Deswal	Jesus and Mary College
10	Sandeep Kanyal	ARSD, Dhaula kuan
11	Nikita Gupta	Shivaji College
12	Dr Indranil Chowdhury	PGDAV College (M)
13	Dr Sandhya Varshney	Dyal singh college
14	Deepanshi Rajput	Janki Devi Memorial College
15	N Shradha Varma	Maitreyi College
16	Dr Niti khandelwal Garg	Kirori Mal College
17	Priyanka Yadav	Daulat Ram College
18	Sonakshi Jain	Sri Venkateswara College
19	NEHA GROVER	Lady Shri Ram College For Women
20	Preeti Mann	Kamala Nehru 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 I: Multivariate Optimization with constraints (18 hours)

Constrained optimisation with equality and inequality constraints: geometric characterisation,

Lagrange characterisation using calculus and applications; properties of value function: envelope theorem, applications.

Sydsaeter, K., Hammond, P. (2002). *Mathematics for economic analysis*. Pearson Educational. (Chapter 18.1 to 18.9 & 18.3 (The statement only))

UNIT II: Linear programming (10 hours)

Introduction, graphical solution, matrix formulation, duality, economic interpretation.

Sydsaeter, K., Hammond, P. (2002). *Mathematics for economic analysis*. Pearson Educational. (Chapter 19)

UNIT III: Integration, differential equations, and difference equations (17 hours)

Definite integrals, indefinite integrals and economic applications; first order and second order difference equations, equilibrium and its stability; first order differential equations, phase diagrams and stability; second order differential equations.

Sydsaeter, K., Hammond, P. (2002). *Mathematics for economic analysis*. Pearson Educational. (Chapter 10, 20 and 21 (except 21.9))

2. The teachers who attended the meeting are in agreement about the need to update "*Mathematics for Economic Analysis*" to its latest available edition, authored by Sydsaeter *et al* from the next academic year. However, this update will only be carried out upon the endorsement of the review committee. A dedicated sub-committee has been established for this purpose, and they are expected to provide their recommendation by October 30, 2023. The sub-committee is comprised of the following members:

Sl No	Name	College
1	Sandhya Varshney	Dyal Singh College
2	N Shraddha Verma	Maitreyi College
3	Niti Khandelwal Garg	Kirori Mal College

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 ($4 \times 10 = 40$, Students will attempt any 4 out of 6)
- Section B: 30 Marks ($3 \times 10 = 30$, Students will attempt any 3 out of 4)
- Section C: 20 Marks ($2 \times 10 = 20$, Students will attempt any 2 out of 3)