

DEPARTMENT OF ECONOMICS  
DELHI SCHOOL OF ECONOMICS  
UNIVERSITY OF DELHI

Minutes of Meeting

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|------------------------|---|--|
| <b>Subject</b>         | : | Econ- DC I   |
| <b>Course</b>          | : | Mathematical Methods for Economics - I                                     |
| <b>Date of Meeting</b> | : | 23.07.2013 (Tuesday), 11.30 A.M.   |
| <b>Venue</b>           | : | Department of Economics, Delhi School of Economics,<br>University of Delhi |
| <b>Convenors</b>       | : | Prof. Sudhir Shah<br>Dr. Abhijit Banerji                                   |

Attended by:

1. Indranil Chowdhury, P.G.D.A.V.(M)
2. Ram Gati Singh, S.B.S.C.(M)
3. Sandhya Varshney, Dyal Singh College
4. Fiyanshu Sindhwani, L.B.C
5. Naveen Thomas, Jesus & Mary College
6. Narender Thakur, Bhim Rao Ambedkar College
7. S.M. Qaisar Raza, Zakir Husain College
8. Pawan Kumar, Ramjas College
9. Dorothy Roy Choudhry , Bharti College
10. Gagan Pahwa, Vivekananda College
11. Shahid Zafar, S.B.S.C.
12. Anu Satyal, College of Vocational Studies
13. Sanghita Mondal, A.R.S.D. College
14. Shashi Bala Garg, L.S.R. College for Women
15. Meenakshi Kohli, Mata Sundri College
16. Shivani Gupta, D.R.C.
17. Anushruti, Miranda House
18. N. Shradha Varma, I.P. College
19. Sakshi Goel, J.D.M.
20. Neha Goel, Shyam Lal College (M)
21. Neetu Chopra, Miranda House
22. N. Raghunathan, St.Stephen's College
23. Anjali Bansal, Kalindi College
24. Divya Shanker Gupta, Kalindi College
25. Deepti Sethi, J.D.M.
26. Heena Kapoor, S.G.G.S.C.C.
27. Neha Mathur, S.G.G.S.C.C.
28. Papiya Ghosh, Venkateswara College

29. Loveleen Gupta, Bharati College
30. Aniruddha Prasad, Satyawati(M)
31. Gita Golani, S.P.M.
32. Bhumika Hingorani, D.R.C.
33. Rupa Basu, Kamla Nehru College

### **Nature of course**

This is not a "Mathematical Economics" course, but a "Mathematical Methods for Economics" course. The intention is not to transmit any particular body of economic theory, but to transmit the body of basic mathematics that enables the understanding of economic theory in general. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. A pedagogical corollary of this attitude is that economic applications (if any) should be chosen as illustrations, not on the basis of their "importance" or "relevance" in economic doctrine, but on the basis of their appropriateness for illustrating particular aspects of mathematical techniques being taught in this course. Classroom instruction should stress the understanding and skill in the application of mathematical theorems and techniques, rather than the mastering of any particular set of economic applications.

### **Textbook**

K. Sydsaeter, P. J. Hammond: *Mathematics for Economic Analysis*, Pearson Educational Asia, Delhi, Latest available reprint of 1<sup>st</sup> ed. (1995)

This is the reference textbook for notifying excluded material, as specified below. It defines the level of sophistication of material to be transmitted to students and the problems contained therein indicate the level of difficulty of questions that may be asked in examinations.

There is no presumption that examination questions can be chosen only from the prescribed textbook. However, the examiner should ensure that the level of difficulty is at par with the difficulty of problems in the textbooks; the evaluation of "difficulty" is best left to the prudence and academic judgement of the examiner.

Instructors should feel free to draw upon any appropriate supplementary sources for problems and material that they feel is handled inadequately or poorly in the prescribed textbook.

### **Material to be covered**

The Summer semester course will cover all of Chapters 1-10 of the textbook, other than Sections 6.7 (pages 208-213) and 10.4 (pages 340-347).

## Final examination

This will be for 75 marks at the end of the semester.

Final examinations are expected to adhere roughly to the following weights attached to the four main components of the course: Part 1 (10%), Part 2 (25%), Part 3 (25%) and Part 4 (40%). These guidelines are not ironclad and the weight for any particular Part can vary by up to 10% points; e.g., the weight for Part 4 can vary between 30% and 50%.

Proofs of propositions that are relatively straightforward may be asked in the examinations. However, questions should not be such as to allow mere regurgitation of theorems proved in the textbook and memorized by the students. Ideal questions should test the student's ability to understand and correctly apply theorems proved in the textbooks rather than merely reproduce their proofs.

Examiners should avoid questions whose solutions involve mere memorization of formulae and computation.

Questions may require students to apply techniques learned in this course to applications drawn from economic theory. However, such questions should be framed with great care. Such questions should explicitly state the **mathematical structure** required to derive the answer, not leave it implicit, assuming that students will be aware of the economic model in question and the assumptions underlying it. The examiner may assume that students are **mathematically** sophisticated at a level indicated by this course, but there should be no presumption of economic sophistication or knowledge of economic doctrine.

Economic applications available in the textbooks and covered in class should **not** be assumed to be an exhaustive list of potential applications that may be used for framing examination questions.

There should be no presumption that a particular pattern or style of the examination will be replicated from year to year. The examiners shall have latitude to make academically prudent changes subject to the above-mentioned weightage guidelines.

## **Internal assessment**

Internal assessment (25 marks) shall consist of Group Presentation for 15 marks and a Class Test for 10 marks. Each group of 8-10 students shall make their presentation during the semester.

Evaluation of group presentations should be based on consideration of factors such as effectiveness in communication, content and ability to deal with questions/observations raised by the teachers. Students of other groups present in the class should be encouraged to ask questions/make observations which can be moderated by the teacher to provide a better understanding of the topic of the presentation.

Subject-wise Moderation Committees and Monitoring Committee as provided for in the existing ordinance on internal assessment shall continue to function as herein before.

There shall be no internal assessment in practical papers.

There shall be no reappearance in Internal Assessment/practical examination.