EC 407: MATHEMATICAL METHODS IN ECONOMICS
Monsoon 2013-14

Instructor: Rajendra Prasad Kundu
Office: Room No. 322, SSS-II

LECTURES

Monday 2.30 p.m. - 3.30 p.m.
Wednesday 2.30 p.m. - 3.30 p.m.
Friday 2.30 p.m. - 3.30 p.m.

Room No. : 205, SSS-II

CONTACT HOURS

Monday 4.00 p.m. - 5.30 p.m.
Tuesday 9.30 a.m. - 1.00 p.m.
Friday 4.00 p.m. - 5.30 p.m.

DESCRIPTION

Mathematical Methods in Economic (EC407) is a compulsory course in the M.A. programme of the Centre for Economic Studies and Planning, Jawaharlal Nehru University. This four credit course is usually offered in the winter semester.
The course is designed to equip students with some essential mathematical tools. The aim is to enable students to follow simple economic problems relating to optimization and dynamical systems.The tentative outline for the course is given below:

COURSE OUTLINE

1. Introduction to sentential logic
2. Sets, Relations and Functions
3. Real Number System
4. Linear Algebra
5. Real Analysis
6. Optimization

REFERENCES

1. K. G. Binmore, Mathematical analysis, Cambridge University Press, 1991.
2. Avinash K. Dixit, Optimization in economic theory, Oxford University Press, 1990.

3. David Gale, The theory of linear economic models, McGraw-Hill, 1960.
4. G. Hadley, Linear algebra, Narosa Publishing House, 1987.
5. Carl P. Simon and Lawrence Blume, Mathematics for economists, W. W. Norton and Company, 1994.
6. Alton H. Smith and Jr. Walter A. Albrecht, Fundamental concepts of analysis, Prentice Hall of India, 1966.
7. Gilbert Strang, Introduction to linear algebra, Wellesley-Cambridge Press, 2003.
8. Rangarajan K. Sundaram, A first course in optimisation theory, Cambridge University Press, 1996.
9. Patrick Suppes, Introduction to logic, Affiliated East-West Press, 1957.
10. Anjan Mukherji and Subrata Guha, Mathematical Methods and Economic Theory, OUP India, 2011.
11. Knut Sydsaeter and Peter J. Hammond, Mathematics for economic analysis, first, fourth impression ed., Pearson Education, 2009.
12. Alfred Tarski(1965), Introduction to logic and to the methodology of deductive science, Oxford University Press, 1965.