

Subject Code: 1MS1010207	Subject Title: Business Mathematics
---------------------------------	--

1. Course Objectives:

This Course creates a better knowledge of formulating mathematical models for quantitative analysis and develops skills in the use of Operations Research approaches in solving real problems in business, commerce and Management.

2. Teaching Scheme (Hours per week)

Lecture (Hrs.)	Tutorial	Practical	Credit	Evaluation Scheme (Marks)		Total
				University Assessment	Continuous Assessment	
4	-	-	4	70	30	100

3. Syllabus:

Module No.	Contents	Total Hours	Weight
1	Linear Programming – I: Introduction of Operation Research, Meaning and Uses of Linear Programming, Mathematical Formulation of Linear Programming, Problem for Two Variables, Important Terms Used in Linear Programming, Solution of Linear Programming Problems By Graphical Method.	13	25%
2	Linear Programming-II: Introduction of Simplex Method, Slack Variable, Surplus Variable, Incoming Variable, Pivot Column, Pivot Row, Outgoing Variable, Solution of Linear Programming Problems By Simplex Method.	14	25%
3	Transportation Problems: Formulation of Transportation Problem, Its Initial Basic Feasible Solution by North-West Corner Rule, Matrix Minima (Least Cost Method), Vogel's Approximation Method (VAM) and Optimum Solution by Modified Distribution Method, Degeneracy and Its Resolution.	13	25%
4	Assignment Problems: Meaning, Assignment Problem with Restriction, Unbalanced Assignment Problem, Maximization Problems and Its Optimum Solution by Hungarian Method.	13	25%

4. Suggested Readings

Books:

1. P. K. Gupta and Manmohan : Operation research and statistical analysis , S.Chand.Co, New Delhi
2. S. D. Sharma: Operation Research, Kedar Nath & Co., Meerut
3. Hillier & Lieberman: Introduction to Operations Research, TataMcGraw Hill Publication, New Delhi.
4. H. A. Taha : Introduction to Operations Research, PHI Publications, New delhi.