Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD
DEPARTMENT OF ECONOMICS
M.A. (Economics) SYLLABUS

Course Code No.:ECO-413	No. of Credits: 04	Semester: IV
Course Title:	MATHEMATICAL ECONOMICS - II	

Course Objectives:

1. To provide students with mathematical programming for economical analysis.
2. The provide students with training suitable for careers in banking, industry, applied mathematics, or finance in private sector.

Unit	Course Content	Periods
I	**Linear Programming** 1.1 Meaning , mathematical formulation ,basic concepts of L.P.P. (1) 1.2 Formulation of Linear Programming Problem(2) 1.3 Graphical Method (3) 1.4 Simplex Method(4 1.5 Formulation of the dual of a programme and its interpretation(2) 1.6 Statements of basic theorems of L.P.P. and Duality(1) 1.7 Shadow prices and their uses(2)	13
II	**Game Theory** 2.1 Meaning, Nature, scope, limitations (1) 2.3Types of Games (1) 2.3 Saddle point solution(2) 2.4 The Prisoner's Dilemma(2) 2.5Solution by linear system(2) 2.6 Game theory and LPP.(2)	12
III	**Assignment Problem** 3.1 Meaning and Nature of the Problem (2) 3.2 Methods of Solution(1) 3.3 Computational Procedure(5) 3.4 Some special Types (4)	12
IV	**Transportation Problem** 4.1Meaning and Nature of Transportation Problem (2) 4.2 North-West Corner Method and Other Methods 4.2 Optimality Test (5)	14

V	**Dynamic Programming**
	4.1 Meaning ,nature, importance of dynamic
	    programming (2)
	4.2 Sequential decisions, network recursive solutions.
	    problems (7)
	4.3 Bellman's principle of optimality.(2)
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Learning Outcomes		
1.Students show a good understanding of mathematical programming for Economical analysis 2. Students have readiness for careers in banking and other competitive examinations.		

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