

Semester Lecture Plan

Name of the college: Government college of Arts Science and Commerce ,Sankhali

Name of Faculty: Deepak Bandiwadekar

Subject: Mathematics

Paper code: MAT 321 Linear Programming Problems

Program/Course: TYBSC

Division:

Academic year: 2025- 2026

Semester: V

Total Lectures: 45

Course Objectives: to understand the concept of optimisation, formulation of L.P.P. graphical & algebraic methods of solving an L.P.P., dual problems, Transportation & assignment problems

Expected course Outcome: students to understand the formulation & solutions of L.P.P. & special cases of Transportation & Assignment problems

Student learning outcome: The student will be able to get a practical idea about real life optimization problems & techniques of solving such examples

Month	Lectures From: To:		No. of lecture s allotted	Topic, Subtopic to be covered	Exercises/ assignment	ICT Tools	Reference books
JUNE/ JULY	23rd	28th	03	Formulation of L.P.P./Graphical solution		Chalk & duster	Operations Research by Kanti Swarup Gupat & others
	30th	5th	03	Convex sets			

	7th	12th	03	Standard form Basic solution			
	14th	19th	03	Simplex Method Results Non degenerate B.F.S.			
	21st	26th	03	Simplex Method Results			
JULY/ AUGUST	28th	2nd	03	Simplex Method Results			
	4th	9th	03	Simplex Method : slack variable			
	11th	16th	03	Simplex Method : Artificial variable Big M method			

	18 th	23 rd & 25 th	03	Two phase method Duality			
SEPTEMBER	2nd	6th	03	Duality			
	8th	13th	03	Duality			
	15 th	20th	03	Post optimal analysis			
	22nd	27th	03	Transportation Problems			
SEPTEMBER/OCTOBER	29th	4th	03	Transportation Problems			
	6th	11th	03	Assignment Problems			

	13th	18 th	03	Revision			
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*** Assessment Rubrics**

Component	Max Marks
ISA 1	7.5
ISA 2	7.5
ISA 3	7.5
Practical	25
Semester End Exam	60