

OBJECTIVES:

- To find the optimal solution of an optimization problem
- It graphically displays interdependent relationships between group's steps and tasks as they all impact a project.

Learning Outcomes: After learning this course, the student will be able:

1. To know the scope of Operations Research
2. To link the OR techniques with business environment and life sciences
3. To convert real life problems into mathematical models
4. To find a solution to the problem in different cases
5. To inculcate logical thinking to find a solution to the problem

Course:

1. To solve Linear Programming Problem using Graphical Method with
 - (i) Unbounded solution
 - (ii) Infeasible solution
 - (iii) Alternative or multiple solutions.
2. Solution of LPP with simplex method.
3. Problem solving using Charne's M - method.
4. Problem solving using Two Phase method.
5. Illustration of following special cases in LPP using Simplex method
 - (i) Unrestricted variables
 - (ii) Unbounded solution
 - (iii) Infeasible solution
 - (iv) Alternative or multiple solutions.
6. Problems based on Principle of Duality.
7. Problems based on Dual simplex method.
8. Problems based on Post Optimal Analysis.

BOOKS FOR STUDY:

1. Operations research – S.D. Sharma,2014
2. Operations research – Taha. H.A.,2014

BOOKS FOR REFERENCE:

1. Operations research –Wagner,2015
2. Operations research – Kanthi swaroop ,2012
3. Operations research – V.K. Kapoor,2014
4. Operations research – Kanthi swaroop and other.,2012
5. Linear Programming - Hadley G,2014