

**VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT**  
**APPLIED OPERATION RESEARCH**

**Objective:**

The course is designed to present the scope of various quantitative methods with enough specification so that the manager understands the reasoning behind the methods and is able to interpret their results.

**Contents:**

Linear programming , Formulation of linear optimization Models , Simplex and Transportation models ,Sensitivity testing and duality , Dynamic programming and its applications , Integer programming and combination models , Network analysis , Shortest route and other network models , waiting lines and its applications , simulation and its applications , goal programming and its application to business .

Growth of urbanization and problems of transportation ; Transport challenges and limitations ; Government activities in transportation ,Transportation systems-Planning, Operation ; Transportation Modes and their selection ,sequential Travel demand forecasting models ,Future developments in transportation ; Motor vehicle Act 1988 and its impact on urban transport system ; Emission norms.

**Reference:**

1. Gupta M P ,and Sharma J K , Operations research for management . New Delhi , latest edition
2. Sharma J K , Operations research : Theory and Applications , New Delhi , Macmillan India , latest edition
3. Kapoor V K , Operations research , new Delhi , sultan chand publications , latest edition
4. Gupta M P .Metropolitan Transportation system , New Delhi , national 1983
5. Dickey J.W Metropolitan Transportation Planning New Delhi , Tata McGraw Hill , Latest edition .