

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA IN TRANSPORTATION ENGINEERING

Semester: 4

Subject Name Urban Transportation Engineering

| Sr. No. | Course content |
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| 1. | Introduction to transportation systems planning, various modes and comparisons, urban transportation system planning process and evaluation of various models. |
| 2. | Planning methodologies, modeling techniques in planning, problem solving techniques. |
| 3. | Urban transportation planning models, trip generation, trip distribution, modal split analysis, trip assignment techniques, and various models. |
| 4. | Network assignment methods, connectivity, strategies for the evaluation of ultimate transportation framework and case studies. Strategies for the evaluation of alternate transportation plans and plan implementation |
| 5. | Land use planning models and their suitability. Transportation impacts study methodologies. |
| 6. | Urban goods movement. framework and case studies. |

TUTORIALS :

Problems based on trip generation, trip distribution modal split analysis, trip assignment, and network, Assignment, connectivity, and land use planning mode

REFERENCE BOOKS:

1. B.G.Hutchinson, Principles of urban transportation system planning-
2. Edward K.Morlok, Transportation Engg. And planning
3. W.Dickey, Metropolitan Transportation Planning
4. Blunder and Black, Land use transportation System
5. Vacan R. Vuchick, Land use transportation System
6. J.Ortuzer and L.G. Willumsen, Modelling Transport
7. B.G.Hutchinson.M.J. Bruton, Introduction to urban transportation system planning