



Course Name:

Transportation Engineering

Course Number: 20-433	Credit: 3
Program: Undergraduate	Course Type: Technical elective
Prerequisite: Highway & Traffic Engineering	Corequisite: -

Course Description (Objectives):

Course Content (outline):

- Introduction (Role of transportation in society, transportation and urban structure, transportation as a system, and transportation system components)
 - Transportation planning process
 - Problem identification and Objective setting
 - Definition of study area and zoning
 - Data needs and information gathering in supply and demand of transportation, land use, and socioeconomic variables
 - Transportation demand (trip generation and distribution, mode and path of travel)
 - Transportation supply (shortest path, traffic assignment) supply relations
 - Transportation externalities (air and noise pollution)
 - Evaluation and Decision-making
 - Transportation system Management (TSM)
- Country-wide transportation planning
 - Other modes of transportation

References:

- Introduction to Transportation Engineering and Planning, E. K. Morlok, McGraw-Hill, New York, 1978.
- Principles of Urban Transport Systems Planning, B. G. Hutchinson, McGraw-Hill, New York, 1974.
- Metropolitan Transportation Planning, J. W. Dickey, R. C. Stuart, R. D. Walker, M. C. Comingham, A. G. Winslow, W. J. Diewald and G. Day Ding, McGraw-Hill, New York, 1974
- Transportation Engineering, C. J. Khisty, Prentice Hall, Englewood Cliffs, 1990.