Department: Civil
Number: CE 6315
Title: Infrastructure Planning

Catalog Description: Influence of infrastructure in shaping urban form; relationships between land use and transportation; trends in urban development; site development; circulation and relationships to the street system; guidelines for redevelopment of existing public infrastructure systems.

Prerequisites: CE 4340.


Objectives: The objective of this course is to introduce to graduate students the dynamical interactions between the urban system and the transportation systems. It is particularly aimed at:
Familiarizing students with the history and theory of urban development in the U.S. as well as other countries. (1,2)
Familiarizing students with the jurisdiction of urban planning, design and development. (1,2)
Familiarizing students with prevailing concepts, theories, and practices of traffic engineering as related to operations and management of urban freeway systems. (1,2)
Introducing the theories discussing the interactions between land use and transportation systems. Providing a forum for exchanging ideas and thoughts regarding to urban development and transportation system dynamics. (3,4)

Topics covered
- History of urban formation (U.S. and the World)
- Overview of U.S. urban development jurisdiction system
- Overview of transportation system planning design and operation
- Interaction of urban transportation system and urban system development, including land use, zoning, housing, economic development
- Models for predicting the urban system/transportation system dynamics

Class/Laboratory Schedule
Class: MW 7:30-8:50 PM

Contribution of course to meeting the professional component: This course is a major contributor in exposing the students to profession of transportation engineering

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