Traffic Engineering - TTE 5256 / TTE 4201

University of Florida - Department of Civil and Coastal Engineering

Description: The purpose of this course is to provide students with an overview of the fundamentals of traffic engineering, with emphasis on traffic studies, capacity analysis and traffic control devices.

Objectives: This course deals with the technical aspects of traffic engineering. It covers the analytical procedures and computational methods employed in a wide variety of tasks related to traffic operations and control. A person who completes this course will be able to identify operational problems to carry out traffic engineering studies and evaluate alternative solutions.

Instructor: Wm. M. Sampson - McTrans Center Director

Topics Covered:

- Introduction to Traffic Engineering (Chapters 1 & 2)
- Traffic Streams (Chapter 3)
- Statistical Applications (Chapters 4 & 5)
- Traffic Volume and Speed (Chapters 6 & 7)
- Safety and Accidents (Chapter 8)
- Pedestrians and Bicycles (Notes)
- Access Management (Notes)
- Transportation Planning (Notes)
- Traffic Capacity Analysis Concepts (Chapter 9)
- Multilane & TwoLane Capacity (Chapters 10 & 13)
- Freeway, Ramps & Weaving Capacity (Chapters 11 & 12)
- Traffic Control Devices (Chapter 14 & 15)
- Unsignalized Intersection Capacity (Notes)
- Roundabouts (Notes)
- Traffic Signal Operations (Chapters 16 & 17)
- Signalized Intersection Capacity (Chapters 18 & 20)
- Traffic Signal Control Types (Chapter 19)
- Signal Systems & Coordination (Chapters 22 & 23)
- Urban Street Capacity (Chapter 24)
- ITS Concepts & Examples (Chapter 25)
- Intersection Design (Notes)

Required Text: *"Traffic Engineering"* Second Edition, by Roger P. Roess, William R. McShane, and Elena S. Prassas. Prentice Hall publishing. Available at the bookstore and web outlets.

Additional References :

- Highway Capacity Manual 2000
- Manual on Uniform Traffic Control Devices (MUTCD)
- ITE Manual of Transportation Engineering Studies
- ITE Traffic Engineering Handbook