



CE 426 – Public Transportation System

Code and Name: CE 426 – Public Transportation System

Credit Hours: 3 (Lecture: 3, Tutorial: 1)

Textbook:

- Public Transport: Its Planning, Management and Operation by Peter White, 5th Edition, 2009

Other References:

- Urban Transits: Systems and Technology by Vukan R. Vuchin

- Urban Transits: Operations, Planning and Economics by Vukan R. Vuchin

- *Course handouts: distributed on a regular basis to provide more information on the topic.*

Course Description:

Analysis of mass transit systems, their operation, and management. Technology of transit vehicles and structure. Public policy and financing.

Pre-requisites: CE421 Transportation Facility Design

Co-requisites: None

Course Learning Outcomes:

With relation to ABET Student Outcomes (From Fall 2019-SOs: 1-7)

1. Understand the basic components and characteristics of public transport systems (4).
2. Learn how to plan and design the different components of public transport system (1)
3. Understand the cost and pricing theories of public transport planning (2)

Topics to be covered:

- Introduction, Importance of public transport systems.
- The technology of bus and coach systems, Urban railways and rapid transit systems.
- Characteristics and comparisons of transit modes
- Service Quality and Marketing.
- Capacity, Productivity, Efficiency, and Utilization.
- Network planning, Costing and cost allocation methods.
- Pricing theory and practice, current and future policy issues.

Grading Policy:

The grading for the course is: 60% coursework and 40% Final Exam. The course work consists of two Midterm Exams, where each midterm exam is worth 20%. It also includes quizzes, and homework for the remaining 20% that is modified by the course instructor.

