University of Salahaddin- Erbil College of Engineering/ Department of Architecture Higher Diploma Studies



#### Course Book

## Sustainable Public Transportation System

Lecturer

Hadeel Alsabbagh

2023-2024

### **Course Contents:**

- 1- The concept of Public Transportation System (PTS): Terms & Definitions.
- 2- Sustainable Public Transportation System (SPTS).
- 3- Dimensions of Public Transportation System.
- 4- Various Public Transportation Modes.
- 5- Operation System of Public Transportation.
- 6- The Impacts of Public Transportation.
- 7- Benefits of Public Transportation.
- 7-1: Economic Benefits.
- 7-2: Environmental Benefits.

- 8- How to make public transportation an attractive option in the city?
- 9- Public Transport Improvement Plan.
- 9-1: Role of Public Transport in the Comprehensive Urban Transport Strategy.
- 9-2: Public Transport Development Strategies.
- 10- Overview of Public Transport in the Middle-East.
- 11- Overview of Public Transport in the European Union.
- 12- Design Guidelines for Public Transport Facilities.

### Assessment Scheme

\* Report: 10%

\* Seminar: 10%

\*Quiz: 10%

\* Midterm Exam: 20%

\* Annual: 50%

\* Final Exam: 50%

#### Note:

- This syllabus may be subject to changes, i.e, we may take either longer or shorter time to finish a topic.
- Final exam will be determined by the examination committee.

### Reports' Themes

# 1. (Hanan): Exploring Public Transportation Supply–Demand Structure of Erbil.

The relationship between public transportation supply and demand is crucial for the construction and sustainable development of urban transportation. (no. of estimated users and no. of available public transportation)

# 2. (Mohammed): Examining the Elements that Contribute to the Attractiveness of Public Transit: Travel Preferences and Mode Choices.

(Study the factors that can motivate people to use public transportation in Erbil city)

3. (Tara): The physical and health profiles of public transport/or walking users are typically superior to those of motor vehicle drivers. (This study aimed to compare the physical and health profiles between public transport users and frequent drivers in Erbil). Public transportation contributes to a healthier lifestyle by helping people to increase their level of physical activity. Individuals have to work from transit stops to their destinations when they use public transportation. Highlight how physical activity can reduce the risk of health conditions.

# 4. (Jegr): The role of local government in public transportation policy. (Developmental study)

This study aims to show how local governments in Erbil view the role of public transport in society, and to investigate how public transport is used in the policy of the government.

### 5. (Haji): Encouraging public transport use through land use planning.

In this study, land use planning and urban design can play a significant role in public transportation forming in the city.

### 6. (Pezan): The economic dimension of public transportation

Contributions of Public Transportation to the Economic Growth of Nations, where public transportation can support the national economy, and from other hand, The role of public transportation in low income groups of society.

### 7. (Sarween): Public Transportation Management System for Future Smart Cities (innovation and technology)

Public Transport Management is a set of solutions that help make Public Transport Services more efficient. for operators, drivers and passengers.

### 8. (Ziriyan): How Public Transportation Can Improve City Living?

In this report, you will explain the meaning of public transportation. State the means of transportation used and also give examples of vehicles used for public transportation on roads. Also, discuss the benefits of taking public transportation.

### 9. (Janain): Public transportation and sustainability.

(Public transportation is often framed as a key component of building sustainable cities. In this study, the relationship between public transportation and sustainability in terms of social, environment, and economic).

10. (Azhy): Public transportation infrastructure in the city: Erbil as a case study.

(in this study, the infrastructure of public transportation should be investigated to be compared with the system in Erbil city.)

### **Course Reading List**

- 1. Public Transport Planning and Management in Developing Countries, by Ashish Verma, 2014.
- 2. Public Transport: Its Planning, Management and Operation, By Peter R. White, 2017.
- 3. Public transport, by <u>Travel Photo Books</u>, 2019.
- 4. Transit Street Design Guide, <u>National Association of City</u>

  <u>Transportation Officials</u>, 2017.