



Sustainable Urban Development  
Training



# Sustainable Urban Development Training

## Introduction:

This sustainable urban development training course is focused on planning, development, and sustainability of urban centers that are existing or being developed. These centers all share the same or similar characteristics, such as the high concentration of people in a limited space, high requirement for transportation, dependence on outside resources, and creation of pollution and waste.

As the challenges mount, the sustainability of these urban centers is questioned, as they need to intensify investments in tackling the issues. This sustainable urban development training course is designed to present students with solutions to these problems, focusing on developing urban environments that will make them sustainable in terms of living, transportation, climate change, and finances.

## Understanding Sustainable Urban Development:

Sustainable urban development is a framework of strategies for thriving urban areas that balances economic, social, and environmental needs, contributing to a high quality of life. Its potential to offer various advantages, such as reduced environmental impact, enhanced community well-being, and efficient resource utilization, underscores its importance.

In this sustainable urban development course, we will apply the theoretical framework to practice by analyzing various sustainable urban development projects and case studies. Understanding real-world examples enables participants to grasp the complexity and interplay of factors essential to developing strategies for sustainable urban development. Participants pursuing a master's in sustainable urban development will find this practical insight particularly beneficial for their academic and professional progress.

## Why is Sustainable Urban Development Important?

Sustainable urban development addresses the importance of harmonious growth, ensuring that urban development goals align with preserving the environment and providing a high standard of living for all inhabitants. Embracing the principles of sustainable urban development is not just a strategic imperative but also an ethical one, as it represents a commitment to future generations and the planet.

Participants will be introduced to the challenges inherent in sustainable urban development, including balancing urbanization with environmental conservation and addressing social equity issues. By grappling with these real-world problems, course attendees will hone their ability to propose and implement innovative solutions that meet sustainability standards.

## Targeted Groups:

- Urban Planners.
- Transportation Engineers.
- Policy Makers.
- Rail Transport Professionals.
- Environmental Engineers.
- Financial Managers.
- Supply Chain Managers.
- Professionals are involved in the planning and maintenance of the city's infrastructure.

## Course Objectives:

At the end of this sustainable urban development course, participants will be able to:

- Properly assess the demographics of cities.
- Adequately determine possible settlement transitions associated with urban development.
- Determine policies for ensuring energy security in urban development.
- Chart and develop pathways to sustainable road transport.
- Recognize the influence of automated rail on urban mobility.
- Develop methods for ensuring the financial sustainability of urban development.

## Targeted Competencies:

Upon the end of this sustainable urban development training, the target competencies will be able to:

- Urban planning principles.
- Influence of Urban Development on People's Lives and Habits.
- Transport requirements for people and goods.
- Influence of globalization on the urban landscape.
- Climate change and financial sustainability of urban centers.

## Course Content:

### Unit 1: Sustainable Urban Development Introduction:

- Cities of the Past and Cities of the Future.
- Housing.
- Transportation.
- Infrastructure.
- Ecology.
- Policy and Governance of Urban Planning.
- Examples of Sustainable Urban Planning for the Cities.

## **Unit 2: Influence of Urban Growth on Sustainability:**

- Growth Models.
- Urban Demographics and Settlement.
- Capacity Planning for Urban Infrastructure.
- Scarcity of Natural Resources for Urban Centers.
- Sustainable Living Environment Planning.
- Dealing with the Remnants of the Past.

## **Unit 3: The Sustainability of Economics:**

- Housing bubbles.
- Risky Models of Urban Development Financing.
- Painful Lessons from Economic Slowdown.
- Financial Sustainability of Urban Development.
- Ensuring the Financing of Critical Services.

## **Unit 4: Sustainable Mobility:**

- Sustainable road transport.
- Capacity Planning.
- Parking Issues.
- Reserve Capacity.
- Rail Transport.
- Water Transport.
- Air Transport.
- Multimodal Transport.
- Resources and Delivery Planning.

## **Unit 5: Sustainable Urban Development in the Age of Digital Technologies:**

- Use of Data for Urban Planning.
- Development of Smart Cities.
- Use of Simulation for Creating the Digital Twins of the Cities.
- Centralized Traffic Monitoring and Control.
- Assurance of Compliance.
- Maintenance Sustainability.

## **Conclusion:**

The sustainable urban development course aims to equip participants with the tools necessary to meaningfully contribute to sustainable urban development. By addressing its core principles, challenges, and importance, we strive to inspire forward-thinking urban solutions.