CONCEPT

Sustainable Urban Development and Smart City Planning: TOD, Liveability and City Indicators

19 – 23 April 2027
Barcelona - Eixample district four-star



Sustainable Urban Development and Smart City Planning: TOD, Liveability and City Indicators

Ref: 71_9048 **Date:** 19 – 23 April 2027 **Location:** Barcelona - Eixample district four-star **Fees:** 23500 SAR

Introduction:

Sustainable urban development is often undermined by car-dependent sprawl, single-use zoning and infrastructure planned in separate silos, leaving cities with congestion, heat, high service costs and weak public spaces. Smart city investments frequently add sensors and apps without improving outcomes residents can measure. This Core Concept course equips planners and city development managers to shape compact, mixed-use, transit-oriented districts, integrate mobility, water, energy and waste systems, use city data responsibly and track progress with international indicator sets. Participants produce a Sustainable District Plan with a City Indicator Dashboard.

Course Objectives:

- Assess the sustainability baseline of a city or district using land-use, density, mobility and service data
- Apply compact, mixed-use and transit-oriented development principles from the ITDP TOD Standard to a district master plan
- Prepare land-use, street network and public space proposals that improve walkability, access to transit and liveability
- Integrate water, energy and waste infrastructure options at district scale and screen them against green building and community rating criteria
- Specify smart city data platforms and digital services with clear use cases, data governance and indicator links
- Build a city indicator dashboard using ISO 37120:2018, ISO 37122:2019 and SDG 11 targets, with a funding pathway for priority projects

Target Audience:

- Managers responsible for urban and regional plans, master plans and land-use zoning decisions
- Municipal development managers accountable for city services, public realm and capital programmes
- Real estate and master-developer managers who plan mixed-use districts and new communities
- Transport and mobility managers responsible for transit corridors, street design and parking policy
- Infrastructure managers overseeing water, energy and waste networks at city or district scale
- Smart city and urban data programme managers who deliver digital city services and platforms

Course Outline:

Day 1: Sustainable Cities: Context, Drivers and Baseline

- SDG 11 Goal Statement and Urban Sustainability Targets
- Urban Growth Patterns: Sprawl, Density and Land Consumption Analysis
- Compact City and Mixed-Use Principles for Liveable Districts
- Urban Planning Process: Vision, Master Plan, Zoning and Development Control
- City Sustainability Baseline Assessment Template

Day 2: Planning Frameworks and City Indicator Standards

- ITDP TOD Standard Eight Principles: Walk, Cycle, Connect, Transit, Mix, Densify, Compact, Shift
- ISO 37120:2018 Indicators for City Services and Quality of Life
- ISO 37122:2019 Indicators for Smart Cities
- ISO 37124:2024 Guidance on Combining City Indicator Sets
- Green Building and Community Rating System Criteria Comparison

Day 3: Designing Districts: Land Use, Mobility and Public Space

- Land-Use Mix and Density Allocation Using Floor Area Ratio Plans
- Complete Streets Cross-Section Design and Transit Station Access Plans
- Parking Management and Travel Demand Measures
- Public Space Network and Green Infrastructure Layout
- Walkability and Service Accessibility Mapping with GIS

Day 4: City Systems, Smart Data, Funding and Delivery Risk

- District Water Cycle: Stormwater, Reuse and Demand Management Options
- District Energy, Cooling and Waste Collection Systems Screening
- Urban Data Platform Architecture, Open Data and Privacy Controls
- Land Value Capture and Municipal Funding Instruments Overview
- Urban Heat, Flood and Displacement Risk Register

Day 5: Case Study Work and the Sustainable District Plan

- Brownfield Regeneration Case: Transit-Led Redevelopment of an Industrial Zone
- New Community Case: Master Plan Review Against TOD and Indicator Targets
- Smart Service Case: Selecting Use Cases for a City Data Platform
- Sustainable District Plan and City Indicator Dashboard Assembly
- Planning Committee Panel: Plan Defence and Peer Review

Skills You Will Gain:

- Urban Sustainability Baseline Analysis
- Transit-Oriented District Design
- Land-Use and Density Planning
- Street and Public Realm Design
- District Infrastructure Integration
- Urban Data Governance
- City Indicator Selection
- Urban Project Funding Screening

Why Attend This Course:

- Return with a Sustainable District Plan and City Indicator Dashboard for a district or project you are responsible for
- Challenge master plans and developer proposals with density, access and transit evidence rather than opinion
- Link smart city spending to service outcomes that councils, investors and residents can track
- Compare planning practice with peers from municipalities, developers, transport and utility organisations in several countries

Conclusion:

Sustainable cities result from consistent decisions on land use, streets, infrastructure and data, measured against clear indicators. This course moves from the SDG 11 context and the planning process, through the TOD principles and city indicator standards, to district design, mobility, public space, city-scale water, energy and waste systems, urban data platforms and funding options. The final day applies these methods to cases from several city types and produces a Sustainable District Plan with a City Indicator Dashboard ready for review by a planning committee or board.