



AI-Enabled Urban Planning and Infrastructure Operations Course

3 – 7 January 2027
Muscat

AI-Enabled Urban Planning and Infrastructure Operations Course

Ref: 231_120311 **Date:** 3 – 7 January 2027 **Location:** Muscat **Fees:** 5700 Euro

Overview

AI-Enabled Urban Planning and Infrastructure Operations Course is a five-day course for planning managers, infrastructure teams, municipal service personnel, sustainability staff, mobility and utility coordinators, data teams, and implementers, who leave with an Urban AI Implementation Plan. Participants frame urban problems, assess data readiness, compare spatial scenarios, prioritize projects, plan services, apply sustainability and resilience criteria, and monitor decisions without performing engineering design. Agile Leaders Training Center provides training in AI-enabled urban planning and infrastructure operations.

Who Should Attend

- Urban planning personnel responsible for land-use and service decisions
- Infrastructure personnel responsible for development portfolios and priorities
- Municipal service personnel responsible for mobility and utility coordination
- Sustainability personnel responsible for resilience and environmental criteria
- Data personnel responsible for spatial evidence, quality, and access
- Implementation personnel responsible for introducing urban AI workflows

The course assumes participants contribute to urban planning, infrastructure, services, sustainability, data, or implementation, and it leaves out civil engineering design, programming, model development, and technology demonstrations.

Departments and Industries

The course supports governed planning and infrastructure decisions across urban development and service sectors.

- Urban and regional planning functions
- Infrastructure development and portfolio teams
- Transport and mobility service operations
- Water, energy, and utility planning functions
- Environmental sustainability and resilience teams
- Property development and built-environment services

Learning Objectives

By the end of this course, participants will be able to:



- Apply an urban AI use-case suitability screen
- Analyze urban, infrastructure, and spatial data readiness
- Compare scenarios using service, sustainability, and resilience criteria
- Prioritize infrastructure projects with transparent decision evidence
- Evaluate stakeholder, fairness, privacy, and oversight controls
- Build an Urban AI Implementation Plan

Course Agenda

Day 1: Urban Problems and Decision Boundaries

- Urban Problem Framing Canvas
- AI Use-Case Suitability Matrix
- Planning Decision Rights Chart
- Public-Service Impact and Risk Screen
- Scope, Exclusion, and Escalation Checklist

Day 2: Urban and Infrastructure Data

- Urban Data Asset and Source Inventory
- Spatial Data Quality and Coverage Scorecard
- Infrastructure Data Lineage Map
- Interoperability and Sharing Boundary Register
- Privacy and Access Control Checklist

Day 3: Scenarios and Prioritization

- Spatial Evidence Interpretation Guide
- Urban Scenario Comparison Matrix
- Infrastructure Project Prioritization Model
- Mobility and Utility Service Options Canvas
- Assumption, Uncertainty, and Sensitivity Log

Day 4: Sustainability and Governance

- Sustainability and Resilience Criteria Map
- Stakeholder Participation and Feedback Plan
- Fairness and Neighborhood Impact Review
- Human Oversight and Approval Register
- Urban Performance Indicator Scorecard



Day 5: Urban AI Implementation Practice

- Suggested Exercise: Frame an Urban Planning Use Case
- Suggested Exercise: Assess Spatial and Infrastructure Data
- Suggested Exercise: Compare Scenarios and Prioritize Projects
- Suggested Exercise: Apply Governance and Performance Controls
- Capstone Exercise: Urban AI Implementation Plan

Practical Exercises

The course uses suggested activities that turn urban evidence into governed planning and infrastructure decisions.

- Suggested activity: frame an urban service problem, define scope, and assign decision rights
- Suggested activity: inventory spatial and infrastructure data and assess quality, coverage, sharing, and access
- Suggested activity: compare mobility or utility scenarios and prioritize projects using stated criteria
- Suggested activity: apply sustainability, resilience, participation, fairness, oversight, and performance controls

FAQs

Who suits AI-enabled urban planning and infrastructure operations training, and what does it assume?

AI-enabled urban planning and infrastructure operations training suits personnel responsible for planning, portfolios, services, sustainability, data, or implementation. It assumes practical involvement in urban decisions and does not require programming.

How does urban planning and infrastructure operations training differ from civil engineering design training?

Urban planning and infrastructure operations training focuses on problem framing, data, scenarios, priorities, governance, and performance, while civil engineering design training develops technical specifications and calculations.

How can urban AI support infrastructure project prioritization?

Urban AI can support prioritization by organizing spatial evidence, service needs, sustainability and resilience criteria, stakeholder impacts, assumptions, uncertainty, and transparent human approval.



What controls support AI-enabled urban planning decisions?

AI-enabled urban planning decisions need data-quality checks, access boundaries, fairness review, stakeholder participation, documented assumptions, human decision rights, performance measures, and corrective actions.

What belongs in an Urban AI Implementation Plan?

The plan should contain the problem definition, use-case boundary, data map, scenario method, prioritization criteria, service options, governance controls, stakeholder roles, measures, and improvement actions.

Conclusion

Participants take back an Urban AI Implementation Plan linking urban problems, spatial data, scenarios, project priorities, service options, governance, and performance. It changes how teams structure and oversee planning and infrastructure decisions. The plan supports transparent choices, accountable approval, and monitored improvement.