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COURSE BROCHURE

Climate-Smart Urban Planning and Green Infrastructure Training Course

2 – 13 May 2027
Muscat

Climate-Smart Urban Planning and Green Infrastructure Training Course

Ref: 241_7578 **Date:** 2 – 13 May 2027 **Location:** Muscat **Fees:** 9900 GBP

Climate-Smart Urban Planning and Green Infrastructure is a 2-week training course for urban planners, municipal officials, real estate developers and infrastructure managers who prepare a Climate-Smart District Plan for a new or regenerated neighbourhood. Rising heat, intense rainfall and water stress now shape where and how cities can grow safely. Jupiter Prime Training offers this course to professionals who plan districts around climate risk and natural systems.

Why Climate-Smart Urban Planning and Green Infrastructure Matter Now

Three groups shape urban decisions today. Residents and businesses expect walkable, affordable neighbourhoods with reliable transport and cooler streets. Investors and lenders favour projects with credible environmental performance and lower climate exposure. Public authorities must stretch limited capital across water, energy, mobility and open space while emissions targets tighten. Districts planned well attract investment and keep services affordable; districts planned badly lock in car dependence, heat stress and costly retrofits for decades. The course draws on the Greenhouse Gas GHG Protocol for accounting district emissions and on recognised neighbourhood sustainability rating approaches described in general terms.

Who Gains Most from Climate-Smart Urban Planning and Green Infrastructure

- Planners who prepare master plans, zoning and land-use frameworks
- Municipal staff who approve developments and manage public infrastructure
- Developers who shape mixed-use schemes and their sustainability performance
- Infrastructure managers who plan water, energy and mobility networks
- Specialists who engage communities and coordinate public consultation

A joint public and private project board gains most when its planning, infrastructure and development members attend together and agree one set of district targets.

Climate-Smart Urban Planning and Green Infrastructure Capabilities

Participants connect land use, mobility, green networks and finance into district plans that perform for residents and investors alike.

- Design compact, mixed-use layouts around transit stations — master planning decisions
- Specify green and blue infrastructure that reduces heat and flood risk — utility and parks managers
- Assess district performance with neighbourhood sustainability indicators — approving authorities
- Calculate district energy and emissions baselines — climate action leads
- Build financing structures using land value capture and partnerships — finance committees
- Communicate trade-offs to residents through structured participation — community stakeholders

Key Climate-Smart Urban Planning and Green Infrastructure Terms

- Transit-oriented development — compact, mixed-use growth concentrated within walking distance of high-capacity public transport stations.
- Green infrastructure — networks of parks, street trees, green roofs and wetlands that cool cities, manage water and support biodiversity.
- Urban heat island — higher temperatures in built-up areas caused by hard surfaces, waste heat and limited vegetation.
- Land value capture — recovering part of the land value increase created by public investment to fund infrastructure.
- Fifteen-minute neighbourhood — a district where daily needs are reachable on foot or by bicycle within a short trip.
- Neighbourhood sustainability rating — a structured scheme scoring a district on land use, mobility, energy, water and community criteria.

Climate-Smart Urban Planning and Green Infrastructure Day by Day

Day 1: Climate Pressures on Cities

- Urbanisation Trend Review — Growth, Density and Service Demand
- Urban Sustainability Indicators — Measuring Liveability and Footprint
- Climate Risk Profile — Heat, Flood and Water Scarcity
- Stakeholder Mapping for Cities — Residents, Investors and Agencies
- District Baseline Assessment — Starting Point for Change

Day 2: Land Use and Urban Form

- Density and Mixed-Use Planning — Efficient Land and Shorter Trips
- Fifteen-Minute Neighbourhood Analysis — Access to Daily Services
- Street Network Design — Block Size and Walkability
- Brownfield Regeneration — Reusing Underused Urban Land
- Zoning and Form-Based Codes — Guiding Built Outcomes

Day 3: Mobility and Transit-Oriented Development

- Transit-Oriented Development Station Plans — Density Around Stops
- Active Travel Networks — Walking and Cycling Infrastructure
- Parking Policy and Demand Management — Reducing Car Dependence
- Mobility Hubs and Shared Services — First and Last Mile
- Transport Emissions Scenarios — Comparing Mobility Options

Day 4: Green and Blue Infrastructure

- Urban Green Network Planning — Parks, Corridors and Street Trees
- Sustainable Drainage Systems — Managing Stormwater at Source
- Urban Heat Mitigation — Shade, Cool Surfaces and Vegetation
- Biodiversity Net Gain Approaches — Habitat in Developments
- Water Reuse and Efficiency — Treated Wastewater for Irrigation

Day 5: Energy, Buildings and District Systems

- District Energy Baseline — GHG Protocol Emissions Inventory
- District Cooling and Heating Networks — Efficiency at Scale
- Building Energy Performance Standards — New Build and Retrofit
- On-Site Renewable Generation — Rooftop and Shared Solar
- Waste Collection and Circular Resource Hubs — Material Recovery

Day 6: Climate Resilience Planning

- Climate Vulnerability Assessment — Exposed Assets and Communities
- Flood Risk Zoning — Building Out of Harm's Way
- Critical Infrastructure Resilience — Power, Water and Transport Continuity
- Adaptation Pathways — Sequencing Investments Under Uncertainty
- Resilience Scorecards — Tracking Progress Across Districts

Day 7: Smart City Systems

- Urban Data Platforms — Sensors, Dashboards and Open Data
- Smart Traffic and Parking Systems — Real-Time Network Control
- Digital Twins for Planning — Testing Scenarios Before Building
- Smart Utility Metering — Energy and Water Demand Insight
- Privacy and Data Ethics in Cities — Public Trust Safeguards

Day 8: Rating Neighbourhoods and Measuring Performance

- Neighbourhood Sustainability Rating Schemes — Credits and Scoring Logic
- Performance Indicator Sets — Mobility, Energy, Water and Social
- Post-Occupancy Evaluation — Checking Real Outcomes
- Case Contrasts — Residential Districts and Business Parks
- Monitoring Framework — Targets, Data Owners and Reporting

Day 9: Urban Finance and Participation

- Land Value Capture Instruments — Funding Infrastructure From Uplift
- Public-Private Partnership Structures — Sharing Development Risk
- Green and Municipal Bonds — Financing Sustainable Assets
- Participatory Planning Methods — Charrettes, Surveys and Panels
- Affordable Housing Mechanisms — Inclusive Development Choices

Day 10: Practising the Climate-Smart District Plan

- Applying Land Use and Mobility Plans — District Layout Choices
- Applying Resilience Assessment — Protecting Exposed Assets
- Applying Finance Structures — Funding Priority Infrastructure
- Peer Design Review — Testing Targets With Colleagues
- Climate-Smart District Plan — Final Version for Approval

Applying Climate-Smart Urban Planning and Green Infrastructure After the Course

- Run a fifteen-minute neighbourhood access analysis for one district and identify the service gaps to close first.
- Prepare a land value capture options note for the next transit or park investment and test it with finance colleagues.

Climate-Smart Urban Planning and Green Infrastructure Questions FAQ

What is climate-smart urban planning and green infrastructure, and why does it matter now?

Climate-smart urban planning and green infrastructure means shaping land use, mobility and natural systems so districts stay cool, flood-safe and low-carbon. It matters now because rapid growth, heat and flooding are raising costs for residents and public budgets.

Which roles gain most from climate-smart urban planning and green infrastructure training?

Urban planners, municipal officials, developers and infrastructure managers gain most. You benefit if you prepare master plans, approve projects, finance infrastructure or lead community consultation on how a district grows.

How does climate-smart urban planning and green infrastructure differ from an environmental management course?

Climate-smart urban planning and green infrastructure works at district and city scale on land use, transport, green networks and finance. An environmental management course concentrates on an organisation's own sites and environmental controls rather than the shape of neighbourhoods.

What do you bring back from climate-smart urban planning and green infrastructure training?

You bring back a district framework that sets layout, mobility, resilience and financing priorities with measurable targets. You also bring back tools for access analysis, heat and flood screening and land value capture options.

Climate-Smart Urban Planning and Green Infrastructure: The Way Forward

The Climate-Smart District Plan supports the first decision a project board faces: which layout, mobility and infrastructure priorities go forward for approval and funding. Planners, developers and utility managers use it to coordinate design and investment. After the first phase is built, the performance indicators and resilience targets deserve another look against measured outcomes and resident feedback.