Urban Architectural Design Training Course

Professional Development Training Course Outline

Category	Architectural Engineering	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Urban Architectural Design Training Course equips learners with cutting-edge skills in urban planning, sustainable architecture, smart city design, GIS mapping, parametric modeling, and climate-responsive design strategies. The course integrates modern architectural thinking with advanced digital tools, enabling participants to design high-performance urban environments that respond to population growth, environmental challenges, and infrastructure demands.

In today's era of smart cities, green infrastructure, AI-driven urban planning, and net-zero carbon design, urban architectural professionals are expected to blend creativity with data-driven decision-making. This training provides hands-on exposure to 3D urban modeling, BIM integration, transit-oriented development (TOD), placemaking, and urban regeneration strategies. By the end of the program, learners will be capable of designing future-ready cities that prioritize livability, sustainability, and technological innovation.

Programme Curriculum

Urban Architectural Design Training Course

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5 days

Course Objectives

1. Master principles of urban morphology and spatial planning
2. Apply sustainable urban development and net-zero design concepts
3. Develop expertise in smart city infrastructure planning
4. Use GIS and spatial data analytics for urban design
5. Implement parametric and computational design techniques
6. Design transit-oriented development (TOD) models
7. Understand urban heat island mitigation strategies
8. Integrate BIM (Building Information Modeling) in urban planning
9. Apply climate-resilient urban design frameworks
10. Explore mixed-use development optimization strategies
11. Design human-centered and walkable cities (15-minute city concept)
12. Utilize AI and data-driven urban forecasting tools
13. Execute urban regeneration and smart redevelopment projects

Target Audience

1. Architecture students and graduates
2. Urban planners and city designers
3. Civil and structural engineers
4. Real estate developers
5. Government urban development officers
6. GIS and mapping professionals
7. Environmental and sustainability consultants
8. Smart city technology professionals

Course Modules

Module 1: Fundamentals of Urban Design Theory

- Evolution of urban planning principles
- Urban form, density, and zoning systems
- Public space hierarchy design
- Urban design frameworks and standards
- Introduction to global urban models
- **Case Study:** Barcelona Superblocks Model (Spain) – Reclaiming public spaces for pedestrians and sustainability.

Module 2: Sustainable & Green Urban Development

- Net-zero carbon city concepts
- Green infrastructure planning
- Energy-efficient urban systems
- Water-sensitive urban design

- Climate-responsive materials
- **Case Study:** Masdar City (UAE) – A pioneer in carbon-neutral urban planning.

Module 3: Smart Cities & Digital Urbanism

- IoT integration in urban systems
- Smart mobility and transport networks
- Urban data analytics platforms
- Digital twins in city planning
- AI-based infrastructure optimization
- **Case Study:** Singapore Smart Nation Initiative – Data-driven governance and urban efficiency.

Module 4: GIS & Spatial Urban Analysis

- GIS mapping techniques for cities
- Land-use pattern analysis
- Spatial data visualization
- Urban growth modeling
- Remote sensing applications
- **Case Study:** London Urban Expansion Mapping – Data-led city growth management.

Module 5: Transit-Oriented Development (TOD)

- Integrated transport planning
- High-density mixed-use zoning
- Walkability and accessibility design
- Rail + metro-based urban growth
- Mobility-first planning strategies
- **Case Study:** Hong Kong TOD System – High-density, transit-centered urban success.

Module 6: Parametric & Computational Urban Design

- Algorithmic design principles
- Grasshopper & Rhino modeling basics
- Generative urban forms
- Performance-based design systems
- Digital fabrication in urban planning
- **Case Study:** Zaha Hadid Urban Masterplanning Projects – Fluid computational urban forms.

Module 7: Urban Regeneration & Redevelopment

- Brownfield redevelopment strategies
- Adaptive reuse of urban spaces
- Slum upgrading frameworks
- Heritage conservation in cities
- Economic revitalization models
- **Case Study:** High Line Park, New York – Transformation of abandoned rail infrastructure.

Module 8: Future Cities & Resilient Urbanism

- Climate adaptation in cities
- Disaster-resilient infrastructure design

- 15-minute city concept
- AI-based urban forecasting
- Future mobility ecosystems
- **Case Study:** Copenhagen Climate Resilient Masterplan – Flood-resistant and adaptive city design.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price

23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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