Urban Ecology and Green Infrastructure Training Course

Professional Development Training Course Outline

Category	Environmental Management and Conservation	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

This comprehensive training course explores the critical intersection of **urban ecology** and **green infrastructure**, equipping professionals with the knowledge and skills to design and implement sustainable, resilient, and livable cities. In an era of accelerating **climate change** and rapid urbanization, integrating natural systems into the built environment is no longer an option, but a necessity. This course provides a deep dive into **nature-based solutions**, demonstrating how a strategically planned network of green and blue spaces can effectively mitigate urban challenges like the **urban heat island effect**, **stormwater runoff**, and loss of **biodiversity**. We empower participants to become leaders in the **urban sustainability** movement, translating ecological principles into actionable urban planning and design.

Urban Ecology and Green Infrastructure Training Course is designed to bridge the gap between ecological science and practical urban application. Participants will gain an understanding of how cities function as complex ecosystems, and learn to leverage **ecosystem services** to create healthier and more equitable urban environments. Through a blend of theoretical knowledge and hands-on case studies, the course provides the tools to address critical issues from **environmental justice** to **community engagement** in greening initiatives. We focus on cutting-edge techniques and technologies, preparing a new generation of professionals to build the **sustainable cities** of the future.

Programme Curriculum

Urban Ecology and Green Infrastructure Training Course

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Course Objectives

Upon completion of this course, participants will be able to:

- Master the principles of urban ecology and its relevance to modern city planning.
- Evaluate and apply a range of green infrastructure typologies and nature-based solutions.
- Analyze the economic, social, and environmental benefits of urban greening projects.
- Design and implement effective sustainable urban drainage systems (SUDS).
- Mitigate the urban heat island effect through strategic green infrastructure.
- Enhance urban biodiversity and create ecological corridors.
- Develop strategies for climate change adaptation and urban resilience.
- Identify and utilize innovative financing mechanisms for green projects.
- Engage diverse community stakeholders in green infrastructure initiatives.
- Utilize GIS and spatial analysis tools for green infrastructure planning.
- Integrate green infrastructure into existing urban policy and governance frameworks.
- Assess the health and well-being impacts of urban green spaces.
- Create holistic, multi-functional urban landscapes.

Organizational Benefits

- Cultivate a workforce skilled in **sustainable urban development** and **ecological design**, positioning the organization as a leader in the green economy.
- Improve **urban resilience** against climate-related risks such as flooding and extreme heat, reducing potential infrastructure damage and operational disruptions.
- Implement **green infrastructure** solutions that provide long-term cost savings through reduced energy consumption, improved stormwater management, and increased asset value.
- Strengthen your brand reputation and Environmental, Social, and Governance (ESG) standing by actively contributing to healthier, more livable communities.
- Foster a culture of innovation by embracing **nature-based solutions** and staying at the forefront of modern, sustainable practices.

Target Audience

- Urban Planners and City Officials
- Landscape Architects and Designers
- Environmental Managers and Ecologists
- Civil Engineers and Hydrologists
- Real Estate Developers and Urban Developers
- Sustainability Consultants and CSR Professionals
- Public Health Professionals and Community Leaders
- Policy Makers and Government Staff

Course Modules

Module 1: Foundations of Urban Ecology & Green Infrastructure

- Introduction to Urban Ecology.
- Defining Green Infrastructure.
- Ecosystem Services
- The Urban Heat Island Effect.
- **Case Study**: The High Line, New York City - An analysis of a linear park's ecological, social, and economic impacts.

Module 2: Designing Sustainable Urban Systems

- Principles of Ecological Urban Design.
- Green Roofs and Living Walls.
- Sustainable Urban Drainage Systems (SUDS).
- Urban Tree Canopy Management.
- **Case Study**: The City of Portland, Oregon's "Grey-to-Green" initiative focusing on extensive bioswales.

Module 3: Urban Biodiversity & Habitat Creation

- Urban Biodiversity Conservation: Challenges and opportunities for flora and fauna.
- Creating Habitat Corridors: Connecting fragmented green spaces.
- Pollinator-Friendly Design: Promoting native species and ecosystem health.
- Invasive Species Management: Identification and control in urban settings.
- **Case Study**: Singapore's "City in a Garden" strategy and its impact on urban biodiversity.

Module 4: Water Management & Blue Infrastructure

- Integrated Water Management: Holistic approaches to urban water cycles.
- Blue Infrastructure: Restoring urban rivers and creating wetlands.
- Stormwater Management: Reducing runoff and preventing urban flooding.
- Water Quality Improvement: Using natural systems for filtration.
- **Case Study**: The Cheonggyecheon Stream Restoration Project in Seoul, South Korea, and its blue infrastructure benefits.

Module 5: Social Equity and Community Engagement

- Environmental Justice: Ensuring equitable access to green spaces.
- Participatory Design: Co-creating green infrastructure with communities.
- Health and Well-being: The mental and physical benefits of urban nature.

- Addressing Green Gentrification: Preventing displacement through greening.
- **Case Study**: The 11th Street Bridge Park in Washington, D.C., and its community-first development model.

Module 6: Policy, Governance, and Economics

- Policy & Regulation: Integrating GI into zoning and master plans.
- Economic Valuation: Quantifying the ROI of green infrastructure projects.
- Innovative Financing: Green bonds, public-private partnerships, and grants.
- Governance Models: Collaborative frameworks for effective implementation.
- **Case Study**: The City of Philadelphia's Green City, Clean Waters plan and its innovative stormwater fee.

Module 7: Technology & Data for Urban Greening

- Geographic Information Systems (GIS): Tools for spatial analysis and planning.
- Remote Sensing: Using satellite imagery and drones for urban mapping.
- Data-Driven Decision Making: Leveraging data to optimize GI projects.
- Smart City Integration: Connecting GI with smart technologies.
- **Case Study**: Using GIS to map and prioritize tree planting for heat mitigation in Melbourne, Australia.

Module 8: Project Implementation & Management

- Project Lifecycle: From concept to maintenance and monitoring.
- Interdisciplinary Collaboration.
- Long-term Maintenance: Strategies for ensuring GI functionality.
- Monitoring and Evaluation: Assessing project performance and impact.
- **Case Study**: The Chicago Green Alley Program's successful city-wide implementation and management.

Training Methodology

This course employs a dynamic and interactive training methodology to ensure a comprehensive learning experience. It combines a mix of theoretical sessions, practical hands-on exercises, group discussions, and real-world case studies. The methodology includes:

- Expert-Led Lectures.
- Interactive Workshops.
- Case Study Analysis.
- Group Projects.
- Field Visits

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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