Training course on Sustainable Site Development and Land Management

Professional Development Training Course Outline

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

Course Introduction

In an era defined by rapid urbanization, increasing population density, and the escalating impacts of climate change, the way we develop and manage land is paramount to achieving a sustainable future. Conventional site development practices often lead to significant environmental degradation, including habitat destruction, soil erosion, water pollution, increased runoff, and the loss of valuable ecosystem services. These unsustainable approaches not only compromise ecological integrity but also contribute to urban heat island effects, reduce biodiversity, and diminish the quality of life for communities. A fundamental shift towards sustainable site development and responsible land management is therefore essential, requiring a holistic approach that integrates ecological principles, resource efficiency, and community well-being into every phase of land use planning, design, and implementation. This paradigm emphasizes minimizing disturbance, preserving natural features, managing stormwater on-site, and creating resilient, multi-functional landscapes that work in harmony with natural systems. Training Course on Sustainable Site Development and Land Management is meticulously designed to equip with the specialized knowledge and practical skills required to plan, design, and manage sites in an environmentally responsible and socially beneficial manner. Participants will gain a comprehensive understanding of ecological site assessment, low-impact development (LID) strategies, green infrastructure integration, and sustainable land management practices. The curriculum will delve into cutting-edge approaches for minimizing site disturbance, preserving natural hydrology, enhancing biodiversity, and optimizing resource use. Through a blend of theoretical instruction, hands-on site analysis exercises, and in-depth case studies of successful sustainable site developments globally, attendees will develop the expertise to conduct comprehensive site assessments, formulate integrated site development plans, evaluate the economic and environmental benefits of sustainable practices, and navigate the complex regulatory and financing landscapes associated with green development. This course is indispensable for professionals committed to creating vibrant, resilient, and ecologically sound built environments that contribute positively to both human and natural systems.

Programme Curriculum

Training Course on Sustainable Site Development and Land Management

Introduction

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Course Objectives

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

1. Define sustainable site development and its core principles.
2. Analyze the environmental impacts of conventional land development practices.
3. Apply methodologies for comprehensive ecological site assessment and analysis.
4. Understand and implement Low Impact Development (LID) strategies for stormwater management.
5. Integrate green infrastructure elements into site design for multiple benefits.
6. Develop strategies for minimizing site disturbance and protecting natural features during construction.
7. Explore sustainable grading, erosion control, and soil management techniques.
8. Understand sustainable landscaping principles, including native planting and water conservation.
9. Formulate comprehensive sustainable site development plans for various land uses.
10. Navigate relevant policies, regulations, and certifications for sustainable land management.
11. Utilize software tools for site analysis, hydrological modeling, and green infrastructure design.
12. Analyze case studies of successful sustainable site development projects globally.

13. Drive the adoption of sustainable site development and land management practices within their organizations.

Target Audience

This course is essential for professionals seeking to implement sustainable site development and land management:

1. Urban Planners: Developing sustainable land use plans and zoning.
2. Landscape Architects: Designing ecologically sensitive and functional sites.
3. Civil Engineers: Involved in site grading, drainage, and utility design.
4. Environmental Managers: Focusing on land conservation and ecological restoration.
5. Real Estate Developers: Seeking to build environmentally responsible projects.
6. Government Officials: From planning, public works, and environmental agencies.
7. Architects: Integrating site sustainability into building design.
8. Property Managers: Overseeing sustainable land maintenance and operations.

Course Duration

5 Days

Course Modules

Module 1: Introduction to Sustainable Site Development

- Define sustainable site development and its importance in urban and rural contexts.
- Analyze the environmental impacts of conventional land development (e.g., habitat loss, runoff).
- Discuss the principles of ecological design and working with natural systems.
- Explore the concept of ecosystem services provided by healthy landscapes.
- Overview of global trends and certifications for sustainable site development.

Module 2: Ecological Site Assessment and Analysis

- Learn methodologies for conducting comprehensive site assessments (e.g., topography, hydrology, soils, vegetation).
- Understand the importance of identifying critical ecological areas and sensitive habitats.
- Discuss techniques for mapping existing site conditions and opportunities/constraints.
- Explore climate analysis for site-specific passive design strategies.
- Apply site analysis principles to a hypothetical development project.

Module 3: Low Impact Development (LID) for Stormwater Management

- Define Low Impact Development (LID) and its role in managing stormwater on-site.
- Explore various LID techniques: rain gardens, bioretention, permeable pavements, bioswales.
- Discuss the principles of infiltration, evapotranspiration, and rainwater harvesting.
- Understand the design considerations for integrating LID into urban and suburban sites.
- Analyze the benefits of LID for water quality, flood reduction, and groundwater recharge.

Module 4: Sustainable Grading, Erosion Control, and Soil Management

- Learn principles of sustainable grading that minimize cut and fill and preserve natural contours.
- Discuss effective erosion and sediment control measures during construction.
- Understand the importance of topsoil preservation and enhancement.

- Explore techniques for soil compaction mitigation and infiltration improvement.
- Apply sustainable earthwork practices to reduce environmental disturbance.

Module 5: Sustainable Landscaping and Vegetation Management

- Explore principles of native and drought-tolerant landscaping for reduced water use.
- Discuss the selection of appropriate plant species for ecological and functional benefits.
- Understand the role of urban trees and forests in stormwater management and heat island mitigation.
- Learn about integrated pest management (IPM) and organic land care practices.
- Analyze the benefits of creating diverse habitats and promoting biodiversity on site.

Module 6: Site Utilities and Infrastructure Integration

- Discuss sustainable approaches to site utilities (e.g., water, wastewater, energy).
- Explore decentralized water and wastewater systems for site-level management.
- Understand the integration of renewable energy sources into site infrastructure.
- Learn about efficient lighting design and smart controls for outdoor spaces.
- Analyze the optimization of infrastructure layouts to minimize site disturbance.

Module 7: Green Infrastructure and Ecosystem Services

- Define green infrastructure as a network of natural and semi-natural areas.
- Explore how green infrastructure provides multiple ecosystem services (e.g., air quality, cooling, recreation).
- Discuss the integration of green infrastructure into site planning and urban design.
- Understand the concept of ecological connectivity and wildlife corridors on sites.
- Analyze the economic valuation of ecosystem services provided by sustainable sites.

Module 8: Policy, Regulations, and Certifications for Sustainable Sites

- Review national and local policies promoting sustainable site development and land use.
- Discuss relevant zoning ordinances, subdivision regulations, and stormwater mandates.
- Explore green building and site certification systems (e.g., SITES, LEED for Neighborhood Development).
- Understand the role of environmental impact assessments (EIA) for site-specific projects.
- Analyze the challenges and opportunities in regulatory frameworks for sustainable sites.

Training Methodology

- **Interactive Workshops:** Facilitated discussions, group exercises, and problem-solving activities.
- **Case Studies:** Real-world examples to illustrate successful community-based surveillance practices.
- **Role-Playing and Simulations:** Practice engaging communities in surveillance activities.
- **Expert Presentations:** Insights from experienced public health professionals and community leaders.
- **Group Projects:** Collaborative development of community surveillance plans.
- **Action Planning:** Development of personalized action plans for implementing community-based surveillance.
- **Digital Tools and Resources:** Utilization of online platforms for collaboration and learning.
- **Peer-to-Peer Learning:** Sharing experiences and insights on community engagement.
- **Post-Training Support:** Access to online forums, mentorship, and continued learning resources.

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

- Participants must be conversant in English.
- Upon completion of training, participants will receive an Authorized Training Certificate.
- The course duration is flexible and can be modified to fit any number of days.
- Course fee includes facilitation, training materials, 2 coffee breaks, buffet lunch, and a Certificate upon successful completion.
- One-year post-training support, consultation, and coaching provided after the course.
- Payment should be made at least a week before the training commencement to Fineskill Training Center account, as indicated in the invoice, to enable better preparation.

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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