Building Lifecycle Management (BLM) 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

Building Lifecycle Management (BLM) is a strategic, data-driven approach to managing a built asset from planning, design, construction, operation, maintenance, renovation, and demolition. Building Lifecycle Management (BLM) Training Course provides a comprehensive understanding of Digital Construction, BIM Integration, Asset Lifecycle Optimization, Smart Facility Management, and Sustainable Infrastructure Development. Participants will gain hands-on knowledge of how modern technologies such as Building Information Modeling (BIM), Digital Twins, IoT-enabled Smart Buildings, AI-driven Predictive Maintenance, and Cloud-based Facility Management Systems are transforming the construction and real estate industries.

In today's fast-evolving AEC (Architecture, Engineering & Construction) sector, organizations are shifting toward end-to-end lifecycle asset management, ESG-compliant building operations, and data-centric infrastructure planning. This course equips professionals with the skills to enhance cost efficiency, operational performance, sustainability compliance, and long-term asset value optimization. By integrating global best practices in Lean Construction, Smart City Development, Green Building Certification (LEED/BREEAM), and Integrated Project Delivery (IPD), learners will be able to manage complex infrastructure projects with higher efficiency and reduced lifecycle costs.

Programme Curriculum

Building Lifecycle Management (BLM) Training Course

Introduction

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Course Duration

5 days

Course Objectives

1. Understand end-to-end Building Lifecycle Management (BLM) frameworks
2. Apply BIM-based digital construction workflows
3. Integrate Digital Twin technology in asset lifecycle monitoring
4. Implement Smart Facility Management systems
5. Optimize predictive maintenance using IoT and AI analytics
6. Improve construction project lifecycle cost control
7. Develop skills in sustainable building and ESG compliance
8. Enhance asset performance optimization strategies
9. Use cloud-based construction management platforms
10. Apply Lean Construction and Agile project delivery methods
11. Strengthen knowledge of Green Building certifications (LEED, BREEAM)
12. Improve data-driven decision-making in infrastructure management
13. Master end-to-end infrastructure asset lifecycle optimization

Target Audience

1. Civil Engineers & Structural Engineers
2. Architects & Design Professionals
3. Construction Project Managers
4. Facility & Property Managers
5. Real Estate Developers
6. BIM Specialists & Digital Construction Experts
7. Infrastructure Consultants
8. Government Urban Development Planners

Course Modules

Module 1: Introduction to Building Lifecycle Management

- Concepts of BLM and asset lifecycle stages
- Importance of lifecycle thinking in construction

- Key challenges in traditional asset management
- Introduction to digital transformation in AEC
- Role of BIM in lifecycle integration
- **Case Study:** Smart city infrastructure lifecycle planning in modern urban developments

Module 2: BIM Integration in Lifecycle Management

- BIM fundamentals and data structures
- 3D, 4D, 5D BIM applications
- BIM collaboration workflows
- Digital construction modeling
- Interoperability in BIM platforms
- **Case Study:** BIM-driven high-rise commercial building project optimization

Module 3: Digital Twin Technology for Smart Assets

- Digital twin concept and architecture
- Real-time data integration systems
- IoT sensors in built environments
- Simulation and predictive modeling
- Asset performance tracking
- **Case Study:** Airport infrastructure digital twin implementation

Module 4: Smart Facility Management Systems

- CAFM and CMMS systems overview
- Automated maintenance scheduling
- Energy management systems
- Occupancy and space optimization
- Smart building automation systems
- **Case Study:** Smart hospital facility management transformation

Module 5: Predictive Maintenance & AI Analytics

- AI in infrastructure maintenance
- Machine learning for failure prediction
- Sensor-based monitoring systems
- Maintenance cost optimization strategies
- Risk-based maintenance planning
- **Case Study:** Predictive maintenance in railway infrastructure systems

Module 6: Sustainable Construction & ESG Compliance

- Green building principles
- Carbon footprint reduction strategies
- ESG reporting in construction
- Sustainable materials and practices
- Regulatory compliance frameworks
- **Case Study:** LEED-certified commercial complex sustainability model

Module 7: Project Lifecycle Cost Management

- Whole-life costing techniques
- Budget forecasting and cost control
- Value engineering strategies
- Cost-benefit analysis in construction
- Financial risk mitigation
- **Case Study:** Cost optimization in large-scale infrastructure development

Module 8: Smart Cities & Future Infrastructure

- Smart city planning frameworks
- IoT-enabled infrastructure ecosystems
- Data-driven urban management
- Public-private infrastructure models
- Future trends in construction technology
- **Case Study:** Smart city development with integrated digital infrastructure

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:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com