Building Maintenance Systems 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 Maintenance Systems (BMS) Training Course is a comprehensive, industry-focused program designed to equip learners with advanced skills in facility management, predictive maintenance, smart building technologies, HVAC systems optimization, energy efficiency, and asset lifecycle management. In today's rapidly evolving construction and real estate sector, efficient building maintenance is no longer optional it is a strategic necessity for ensuring operational continuity, safety compliance, and cost optimization. Building Maintenance Systems Training Course integrates modern Computerized Maintenance Management Systems (CMMS), IoT-based building automation, preventive maintenance strategies, and sustainability-driven facility operations to prepare professionals for next-generation infrastructure management.

With the rise of smart buildings, green construction standards, AI-driven predictive maintenance, and digital twin technology, organizations are increasingly relying on skilled professionals who can manage complex building systems with precision and efficiency. This training program bridges the gap between traditional facility maintenance and modern intelligent building systems. Participants will gain hands-on expertise in troubleshooting mechanical and electrical systems, implementing maintenance schedules, reducing downtime, improving energy performance, and ensuring compliance with global safety and environmental regulations such as ISO 41001 and LEED standards.

Programme Curriculum

Building Maintenance Systems Training Course

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Course Duration

5 days

Course Objectives

1. Master Smart Building Maintenance Systems (BMS) operations
2. Apply Preventive & Predictive Maintenance Strategies effectively
3. Understand HVAC System Optimization & Energy Efficiency
4. Utilize Computerized Maintenance Management Systems (CMMS)
5. Implement IoT-based Facility Monitoring Solutions
6. Enhance Asset Lifecycle Management & Optimization
7. Ensure Occupational Health & Safety Compliance (OSHA Standards)
8. Develop Fault Detection & Diagnostic Skills in Building Systems
9. Improve Energy Management & Carbon Reduction Techniques
10. Manage Electrical, Mechanical & Plumbing (MEP) Systems
11. Apply Sustainable Facility Management Practices
12. Integrate AI-driven Predictive Maintenance Tools
13. Strengthen Emergency Response & Risk Management in Buildings

Target Audience

1. Facility Managers
2. Maintenance Engineers
3. HVAC Technicians
4. Electrical & Mechanical Engineers
5. Property Managers
6. Construction Project Supervisors
7. Energy Management Consultants
8. Building Operations Staff

Course Modules

Module 1: Introduction to Building Maintenance Systems

- Overview of modern building infrastructure systems

- Role of BMS in smart facility management
- Types of maintenance strategies (reactive, preventive, predictive)
- Components of integrated building systems
- Introduction to CMMS platforms
- **Case Study:** Smart office complex reducing maintenance costs by 25% through CMMS adoption

Module 2: HVAC Systems Maintenance & Optimization

- Heating, ventilation, and air conditioning fundamentals
- Energy-efficient HVAC operations
- Troubleshooting common HVAC faults
- Air quality management techniques
- Predictive HVAC maintenance
- **Case Study:** Hospital HVAC optimization improving energy efficiency and patient air quality

Module 3: Electrical Systems Maintenance

- Power distribution systems in buildings
- Electrical safety standards and compliance
- Fault detection and load balancing
- Backup power systems maintenance
- Energy-saving electrical practices
- **Case Study:** Commercial mall reducing power failures through predictive electrical monitoring

Module 4: Plumbing & Water Systems Management

- Water supply and drainage systems
- Leak detection technologies
- Pumping systems maintenance
- Water conservation strategies
- Sanitation system optimization
- **Case Study:** Hotel chain reducing water wastage by 30% using smart leak detection

Module 5: CMMS & Digital Maintenance Systems

- Introduction to CMMS platforms
- Work order management systems
- Asset tracking and reporting
- Digital maintenance scheduling
- Data analytics in maintenance
- **Case Study:** Manufacturing facility improving uptime using CMMS automation

Module 6: Predictive & Preventive Maintenance

- Difference between predictive and preventive maintenance
- IoT sensors and real-time monitoring
- Vibration and thermal analysis tools
- Maintenance scheduling optimization
- Failure risk assessment
- **Case Study:** Airport infrastructure reducing breakdowns by 40% using predictive analytics

Module 7: Energy Management & Sustainability

- Green building technologies
- Energy auditing techniques
- Carbon footprint reduction strategies
- Renewable energy integration
- LEED certification compliance
- **Case Study:** Corporate headquarters achieving LEED Gold certification through energy optimization

Module 8: Safety, Compliance & Risk Management

- Building safety regulations
- Fire safety systems maintenance
- Emergency response planning
- Risk assessment frameworks
- Regulatory compliance management
- **Case Study:** Shopping complex improving fire safety response time by 60% after system upgrade

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