Building Condition Assessment Training Course

Professional Development Training Course Outline

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

Course Introduction

Building Condition Assessment (BCA) Training Course is designed to develop advanced skills in building inspection, asset performance evaluation, structural health monitoring, facility management, and predictive maintenance strategies. With the growing demand for sustainable buildings, smart infrastructure, risk-based asset management, and lifecycle optimization, professionals must understand how to assess existing buildings, identify defects, evaluate safety risks, and recommend cost-effective rehabilitation solutions. This course integrates digital inspection technologies, condition rating systems, building diagnostics, IoT-enabled monitoring, and data-driven decision-making to improve building performance and extend asset life.

The program provides practical knowledge in structural assessment, MEP system evaluation, envelope inspection, deterioration analysis, compliance auditing, and maintenance planning. Participants will learn internationally recognized approaches for preparing Building Condition Assessment Reports (BCAR), capital improvement plans, and facility resilience strategies through real-world applications and case studies. The course supports professionals in achieving excellence in asset management, sustainability goals, operational efficiency, and resilient infrastructure development.

Programme Curriculum

Building Condition Assessment Training Course

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Course Objectives

By the end of this course, participants will be able to:

1. Understand the principles of Building Condition Assessment (BCA) and modern asset evaluation frameworks.
2. Apply advanced building inspection techniques for structural and non-structural components.
3. Perform condition rating assessments using industry-standard methodologies.
4. Identify building defects through diagnostic inspection and failure analysis.
5. Develop professional Building Condition Assessment Reports (BCAR).
6. Implement risk-based maintenance and predictive maintenance strategies.
7. Evaluate structural integrity and building safety performance.
8. Assess MEP systems, energy efficiency, and operational reliability.
9. Use digital technologies, drones, BIM, and AI-powered inspection tools.
10. Apply facility management and asset lifecycle management principles.
11. Develop cost estimation and rehabilitation prioritization strategies.
12. Improve decision-making through data analytics and smart building technologies.
13. Support sustainable, resilient, and future-ready infrastructure development.

Target Audience

1. Building Engineers and Structural Engineers
2. Architects and Design Consultants
3. Facility Managers and Asset Managers
4. Civil Engineering Professionals
5. Property Owners and Real Estate Developers
6. Maintenance and Operations Teams
7. Government Infrastructure and Municipal Professionals
8. Construction Managers and Project Management Professionals

Course Modules

Module 1: Fundamentals of Building Condition Assessment

- Introduction to Building Condition Assessment frameworks and standards
- Importance of asset lifecycle management and facility resilience
- Building inspection principles and assessment methodologies
- Types of building failures and deterioration mechanisms

- Condition rating systems and assessment criteria
- **Case Study:** Assessment of an aging commercial building to identify structural risks, maintenance priorities, and rehabilitation requirements.

Module 2: Building Inspection Planning and Data Collection

- Developing professional inspection strategies
- Site survey preparation and inspection checklists
- Visual inspection techniques and documentation methods
- Defect recording, photography, and evidence management
- Data collection for digital asset management systems
- **Case Study:** Comprehensive inspection planning for a multi-story residential complex experiencing maintenance challenges.

Module 3: Structural Condition Assessment

- Structural defect identification and evaluation
- Concrete deterioration, corrosion, and cracking assessment
- Steel structure inspection and performance evaluation
- Non-destructive testing (NDT) techniques
- Structural safety and risk assessment approaches
- **Case Study:** Structural condition assessment of a reinforced concrete building affected by corrosion and environmental exposure.

Module 4: Building Envelope and Architectural Assessment

- Facade inspection and performance evaluation
- Waterproofing failures and moisture diagnostics
- Roof condition assessment techniques
- External wall deterioration analysis
- Building envelope sustainability improvements
- **Case Study:** Facade investigation of a high-rise building experiencing water leakage and material deterioration.

Module 5: MEP Systems Condition Assessment

- HVAC system performance evaluation
- Electrical system inspection and safety assessment
- Plumbing and fire protection system review
- Energy efficiency assessment strategies
- Smart building monitoring technologies
- **Case Study:** Assessment of an office building’s MEP systems to improve energy efficiency and operational reliability.

Module 6: Advanced Technologies in Building Assessment

- BIM-enabled condition assessment
- Drone-based building inspections
- Artificial Intelligence (AI) defect detection
- IoT sensors and smart monitoring systems
- Digital twin applications for asset management

- **Case Study:** Using drone inspection and digital modeling for condition assessment of a large infrastructure facility.

Module 7: Risk Assessment, Cost Analysis, and Rehabilitation Planning

- Building risk ranking methodologies
- Maintenance prioritization techniques
- Repair strategies and rehabilitation planning
- Lifecycle cost analysis (LCCA)
- Capital improvement planning
- **Case Study:** Development of a five-year rehabilitation roadmap for a commercial property portfolio.

Module 8: Professional Reporting and Future Trends

- Preparing professional BCA reports
- Assessment findings and recommendation development
- Compliance and sustainability reporting
- Smart facility management strategies
- Future trends in predictive building analytics
- **Case Study:** Creating a complete Building Condition Assessment Report for an institutional facility.

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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