



Construction & Building Envelope
Inspection Course



Construction & Building Envelope Inspection Course

Introduction:

Inspection is the observation of construction to ensure conformance with the approved design documents. This construction and building envelope inspection course will highlight and cover all the inspection and testing aspects for concrete and steel structure construction and building envelope.

This construction and building envelope inspection training will enable individuals who are integral to the construction inspection training process or want to be specialist inspectors to understand the nature and critical importance of building inspection certification within construction projects.

The construction and building envelope inspection course will impart crucial insights into the building inspection certificate program through theoretical and practical training sessions.

Participants in this construction and building envelope inspection training will understand what constitutes a building envelope in construction and envelope building construction techniques.

This comprehensive building inspection course will prepare you for building envelope certification by exploring the various facets of construction and building inspection.

Targeted Groups:

- Engineers.
- Architects.
- Practicing Building Construction Inspectors.
- Project Engineers.
- NDE Lab Personnel.
- Technicians and Technologists involved with building Construction.
- Contractors and Building Owners.

Course Objectives:

Upon completion of this building inspection training course, the participants will:

- Learn about testing and inspection techniques of engineering materials.
- Grasp the intricacies of workmanship in building construction.
- Acquire knowledge to understand NDE for steel and welding.
- Develop the capability to inspect the finishing work activity.
- Understand the testing and inspection protocols necessary for road construction.
- Explore the ways and skills required for meticulous construction inspection.

Targeted Competencies:

Upon completion of this building inspection training course, the participant's competencies will:

- Discussions on the Quality Management System.
- The Critical Role of Inspection and Testing Activity in Construction.
- Applying Inspection and Testing in many construction areas
- Focusing on Practical and Theoretical Ways of Inspection
- How do we integrate new inspection techniques into the work domain?

Course Content:

Unit 1: On-site Quality Management System and Inspection:

- Total Quality Management System.
- Distilling the Essence of Inspection in Construction.
- The Impetus Behind the Need for Inspection.
- Identification of Components Requiring Special Inspection.
- The role and responsibilities of Special Inspectors in ensuring building envelope inspection services are performed effectively.

Unit 2: General Inspection Guidelines:

- Introduction to Field Inspector's Best Practices.
- Inspection Guidelines for Steel Reinforced Bars.
- Essential Steps for Concrete Construction Inspection.
- Evaluating Structural Masonry Through Robust Inspection Strategies.
- Shotcrete Inspection Protocols.
- Non-Destructive Testing NDT Techniques in Concrete.

Unit 3: Steel Structure Inspection Guidelines:

- Detailed Checklist for Structural Steel Inspection.
- Rigorous Inspection of Anchor Bolts, Dowels, and Hold-down Systems.
- Imparting skills in Non-destructive Testing.
- Level II and Level III NDE.
- The Role of a Welding Inspector in Building Construction Inspection.
- Examination of Fireproofing Inspection Essentials.
- Application of Test Method for Determining Concrete Floor Flatness and Levelness F-Numbers.
- Classification and Handling of Soils for Engineering Purposes.

Unit 4: Soil Inspection Guidelines:

- Field Inspectors.
- Guide to Soil Inspection On-site.
- Best Practices in Earthwork Inspection.
- Understand the nuances of Asphaltic Concrete Inspection.
- The Significance of Road Construction Inspection in Ensuring Project Compliance.



Unit 5: Architectural Inspection Guidelines:

- Exploring what composes the building envelope inspection training.
- Fundamental Principles for Roofing and Architectural Sheet Metal Inspection.
- Insulating effectively: Types and Inspection methodology.
- Detailed Process for Woodwork Inspection about Building Envelope Inspections.

Unit 6: Architectural Work Inspection Guidelines:

- Critical Aspects of Plastering and Painting Types and Inspection.
- Guidelines for Comprehensive Tiles Materials Inspection.
- Insight into Practical Exterior Cladding Systems.
- Protocols for Inspecting Deck and Below-grade Waterproofing.
- Precision Inspection Techniques for Doors, Windows, and Other Wall Penetrations.
- Understanding the Compatibility of Building Envelope Components for Blast Resistance.