Electrical inspector Residential Training Course

30 May – 3 June 2027
Accra

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Electrical inspector Residential Training Course

Ref: 36310_95501 **Date:** 30 May – 3 June 2027 **Location:** Accra **Fees:** 6000 Euro

Course Overview:

The course is designed to provide in-depth knowledge and practical skills for inspecting residential electrical systems. This course covers essential topics such as Electrical Safety, Conductor Sizes in Electrical Systems, Service Entrance and Drop Inspection, and Grounding and Bonding for Electrical Systems. Participants will learn to inspect Electrical Panels, Electrical Distribution Systems, and Branch Circuit Connections, ensuring compliance with GFCI and AFCI Circuit Requirements. The course also delves into aluminium wiring safety, electrical panel inspection techniques, and electrical outlet testing. Attendees will gain expertise in Residential Wiring Types, Electrical Meter and Base Installation, Service Amperage Calculation, and Main Disconnect Installation. The curriculum is structured to provide a complete understanding of Electrical Enclosure Inspection and identifying Problematic Electrical Panels. This course is tailored to meet the needs of electrical inspectors, focusing on Electrical Safety for Inspectors. It is ideal for those seeking to enhance their skills and ensure residential electrical systems are safe and compliant.

Target Audience:

- Electrical Inspectors
- Residential Building Inspectors
- Electrical Engineers
- Safety Inspectors
- Maintenance Technicians
- Construction Managers
- Electricians

Targeted Organizational Departments:

- Building Inspection Departments
- Electrical Safety Departments
- Maintenance Departments
- Construction and Engineering Departments

Targeted Industries:

- Construction Industry
- Real Estate Industry
- Electrical Services Industry
- Government Regulatory Bodies

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Course Offerings:

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

- Ensure Electrical Safety in residential inspections.
- Accurately determine Conductor Sizes in Electrical Systems.
- Conduct complete Service Entrance and Drop Inspections.
- Implement effective Grounding and Bonding for Electrical Systems.
- Inspect and evaluate Electrical Panels.
- Understand Electrical Distribution Systems.
- Make proper Branch Circuit Connections.
- Apply GFCI and AFCI Circuit Requirements.
- Address Aluminium Wiring Safety.
- Utilize Electrical Panel Inspection Techniques.
- Test Electrical Outlets effectively.
- Identify and work with various Residential Wiring Types.
- Install Electrical Meters and Bases.
- Calculate Service Amperage.
- Install Main Disconnects.
- Inspect Electrical Enclosures.
- Recognize and address Problematic Electrical Panels.
- Maintain Electrical Safety for Inspectors.

Training Methodology:

The course employs a variety of engaging and interactive training methodologies to ensure complete learning. Participants will engage in case studies, group work, interactive sessions, and feedback sessions to reinforce learning. Practical demonstrations and hands-on activities will be used to illustrate key concepts such as Electrical Safety, Conductor Sizes in Electrical Systems, and Service Entrance and Drop Inspection.

Course Toolbox:

- complete workbooks
- Reading Materials
- Online Resources
- Checklists for Electrical Safety
- Templates for Electrical Inspections

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Course Agenda:

Day 1: Fundamentals and Safety

- **Topic 1:** Introduction to Electrical Inspection
- **Topic 2:** Safety First: Electrical Safety Procedures
- **Topic 3:** Basic Electrical Terms and Concepts
- **Topic 4:** Simple Electrical Theory Overview
- **Topic 5:** Conductor Sizes and Their Importance
- **Topic 6:** Introduction to Service Entrance Systems
- **Reflection & Review:** Key Learnings and Safety Practices

Day 2: Service Entrance and Grounding

- **Topic 1:** Service Drop: Inspection and Requirements
- **Topic 2:** Service Mast and Attachments: Installation Standards
- **Topic 3:** Service Lateral: Overview and Inspection
- **Topic 4:** Electric Meters and Bases: Types and Installation
- **Topic 5:** Service Entrance Cable: Selection and Installation
- **Topic 6:** Grounding System: Principles and Practices
- **Reflection & Review:** Grounding and Service Entrance Considerations

Day 3: Panels and Enclosures

- **Topic 1:** Grounding and Bonding of Components
- **Topic 2:** Panels and Enclosures: Types and Standards
- **Topic 3:** Service Panels: Inspection and Maintenance
- **Topic 4:** The Main Disconnect: Function and Requirements
- **Topic 5:** Service Amperage: Calculation and Compliance
- **Topic 6:** Inspecting Enclosures, Part I: Basics
- **Reflection & Review:** Enclosure Inspection Techniques

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Day 4: Advanced Panel Inspections and Distribution

- **Topic 1:** Inspecting Enclosures, Part II: Detailed Inspection
- **Topic 2:** Inspecting Enclosures, Part III: Complex Systems
- **Topic 3:** Edison Base Screw Fuse Panels: Identification and Safety
- **Topic 4:** Circuit Breaker Panels: Types and Testing
- **Topic 5:** Problem Panels: Identification and Solutions
- **Topic 6:** 3-Phase Panels and Panel Oddities
- **Reflection & Review:** Challenges in Panel Inspections

Day 5: Wiring, Testing, and Advanced Circuits

- **Topic 1:** Electrical Distribution Systems Overview
- **Topic 2:** Wiring Types: Identification and Safety
- **Topic 3:** Aluminium Wiring: Risks and Inspection Techniques
- **Topic 4:** Branch Circuit Connections: Standards and Practices
- **Topic 5:** Testing Outlets and Terminations: Tools and Techniques
- **Topic 6:** GFCI and AFCI Circuits: Requirements and Testing
- **Reflection & Review:** Course Summary and Final Assessment

How This Course is Different from Other Electrical Inspector Courses:

This course stands out due to its complete coverage and practical approach. Unlike other courses, this program offers a deep dive into specific topics such as Electrical Safety, Conductor Sizes in Electrical Systems, and Service Entrance and Drop Inspection. The hands-on training methodology ensures participants can apply Grounding and Bonding for Electrical Systems and Electrical Panel Inspection Techniques in real-world scenarios. The course also addresses unique challenges like Aluminium Wiring Safety and Problematic Electrical Panels, providing participants with the techniques to handle these issues effectively.