Mastering The Saudi National Electrical Code (SBC 401)

22 - 26 Dec 2025
Kuala Lumpur

AGILE LEADERS
Training Center

Mastering The Saudi National Electrical Code (SBC 401)

Ref.: 36311_42701 **Date:** 22 - 26 Dec 2025 **Location:** Kuala Lumpur **Fees:** 5200 **Euro**

Course Overview:

This course is designed to equip professionals with a complete understanding of the Saudi National Electrical Code SBC 401. This course covers essential aspects such as electrical code compliance, safety standards, and installation practices specific to Saudi Arabia. Participants will gain expertise in electrical safety measures, including protection against electric shock, overcurrent, and voltage disturbances, ensuring compliance with Saudi Building Code regulations. Through this training, attendees will enhance their knowledge of electrical equipment selection, system design, and verification processes, crucial for maintaining low-voltage installations and fire protection systems.

Target Audience:

- Electrical Engineers
- Compliance Officers
- Safety Inspectors
- Electrical Inspectors
- Facility Managers
- Maintenance Supervisors

Targeted Organizational Departments:

- Engineering and Maintenance
- Safety and Compliance
- Facilities Management
- Quality Assurance
- Construction and Project Management

Targeted Industries:

- Construction
- Manufacturing
- Oil and Gas
- Utilities
- Real Estate Development

Course Offerings:

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

- Interpret and apply the Saudi National Electrical Code SBC 401
- Ensure compliance with electrical safety standards in Saudi Arabia
- Design and verify electrical systems according to SBC 401
- Implement protection against electric shock, overcurrent, and voltage disturbances
- Conduct thorough inspections and safety checks on electrical installations

Training Methodology:

The course employs a blend of theoretical instruction and practical applications. It includes case studies, group discussions, interactive sessions, and hands-on exercises. Participants will engage in real-world scenarios to apply SBC 401 principles, focusing on electrical safety, system design, and compliance.

Course Toolbox:

- Course Manual and Workbooks
- Access to Online Resources and Code References
- Checklists and Templates for Compliance and Safety Checks

Course Agenda:

Day 1: Scope and Fundamental Principles

- **Topic 1:** Overview and Scope of SBC 401
- **Topic 2:** Fundamental Principles of Electrical Safety
- **Topic 3:** Protection Against Electric Shock
- **Topic 4:** Protection Against Thermal Effects and Overcurrent
- **Topic 5:** Managing Fault Currents and Voltage Disturbances
- **Topic 6:** Electrical System Design: Considerations and Best Practices
- **Reflection & Review:** Key Takeaways and Initial Reflections

Day 2: Assessment of General Characteristics

- **Topic 1:** Purposes, Supplies, and Structural Considerations
- **Topic 2:** Types of Distribution Systems and Earthing
- **Topic 3:** Supplies for Safety Services and Standby Systems
- **Topic 4:** Compatibility and Maintainability in Electrical Installations
- **Topic 5:** Ensuring Safety Services and Emergency Preparedness
- **Topic 6:** Division of Installation and Organizational Compliance
- **Reflection & Review:** Day's Learnings and Practical Applications

Day 3: Protection for Safety

- **Topic 1:** Comprehensive Protection Against Electric Shock
- **Topic 2:** Safety Measures Against Thermal and Fire Hazards
- **Topic 3:** Overcurrent Protection: Devices and Strategies
- **Topic 4:** Managing Short-Circuit Currents in Electrical Systems
- **Topic 5:** Protection Against Overvoltages and Electromagnetic Influences
- **Topic 6:** Advanced Techniques in Voltage and Current Management
- **Reflection & Review:** Analysing Safety Measures and Case Studies

Day 4: Selection and Erection of Electrical Equipment

- **Topic 1:** Compliance with Standards and Operational Conditions
- **Topic 2:** Selection and Installation of Wiring Systems
- **Topic 3:** Ensuring Accessibility and Safety of Electrical Equipment
- **Topic 4:** Identification and Prevention of Mutual Detrimental Influences
- **Topic 5:** Isolation, Switching, and Control of Electrical Systems
- **Topic 6:** Earthing Arrangements and Protective Conductors
- **Reflection & Review:** Evaluating Installation Practices and Safety Protocols

Day 5: Verification and Special Systems

- **Topic 1:** Initial and Periodic Verification of Electrical Installations
- **Topic 2:** Special Locations and Installation Considerations
- **Topic 3:** Power Factor Improvement Techniques
- **Topic 4:** Protection Against Lightning: Planning and Implementation
- **Topic 5:** Fire Detection and Alarm Systems in Electrical Safety
- **Topic 6:** Final Assessment and Certification Process
- **Reflection & Review:** Course Summary and Final Reflections

How This Course is Different from Other SBC 401 Courses:

This course offers a unique blend of complete theoretical knowledge and practical skills tailored to the specific regulatory environment of Saudi Arabia. Unlike other courses, it provides in-depth coverage of local electrical standards and compliance requirements, with a strong focus on practical application through case studies and interactive sessions. Participants will benefit from expert insights into the latest updates and best practices in electrical safety, ensuring they are well equipped to manage and verify complex electrical systems within their organizations. This course stands out by offering a holistic approach to mastering SBC 401, catering to professionals across various industries and organizational levels.

Training Course Categories

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Agile PM and Project Management Training Courses

Certified Courses By International Bodies

Communication and Public Relations Training Courses

Data Analytics Training and Data Science Courses

Environment & Sustainability Training Courses

Governance, Risk and Compliance Training Courses

Human Resources Training and Development Courses

IT Security Training & IT Training Courses

Leadership and Management Training Courses

Legal Training, Procurement and Contracting Courses

Maintenance Training and Engineering Training Courses

Training Course Categories

Marketing, Customer Relations, and Sales Courses

Occupational Health, Safety and Security Training Courses

Oil & Gas Training and Other Technical Courses

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Zoom - Online Training

WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

OUR VISION

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

OUR MISSION

We are dedicated to developing value-adding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.

AGILE LEADERS
Training Center

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