

Course Overview:

This advanced-level course is designed for professionals responsible for maintaining high voltage systems in industrial environments. It provides practical insights into troubleshooting, servicing, and optimizing high voltage equipment, with a focus on safety and compliance. Participants will gain in-depth understanding of the systems used in complex operations, enabling them to address equipment challenges effectively and improve operational reliability.

Course Objective:

- Apply advanced maintenance strategies to high voltage systems.
- Diagnose and resolve high voltage equipment failures.
- Implement safety protocols and ensure regulatory compliance.
- Optimize performance of high voltage equipment in operational settings.
- Adapt to technological advancements in high voltage maintenance.

Course Outline:

1. Understanding High Voltage Systems
 - Principles of high voltage operation
 - Equipment types and functionalities
 - Operational and safety standards
2. Maintenance and Servicing Techniques
 - Preventive and predictive maintenance
 - Servicing protocols for industrial setups
 - Lifecycle and asset management
3. Troubleshooting and Failure Analysis
 - Common failure modes and diagnostics
 - Root cause analysis and case studies
 - Repair and recovery procedures
4. Safety Practices and Risk Management
 - High voltage safety protocols
 - Risk assessment methodologies
 - Emergency response planning
5. Regulatory Compliance and Standards
 - International standards (e.g., IEC, IEEE)
 - Industry-specific regulations
 - Documentation and audit readiness
6. Technological Advancements
 - New technologies in equipment maintenance
 - Digitization and monitoring tools
 - Strategies for adopting innovation
7. Performance Optimization
 - Efficiency improvement methods
 - Performance monitoring tools
 - Optimization strategies in industrial contexts
8. Case Study Analysis
 - Real scenarios from industrial operations

Training Language:

English/Arabic

Training Methodology:

The course combines various teaching methods, including instructor-led presentations, group discussions, case study analyses, and assessments through quizzes and a final exam to engage participants and ensure they understand and retain the material.

Venue | Date | Fees

Jubail | 09-11-2025 | 17,250 SAR

- Interactive problem-solving sessions

- Lessons learned and best practices

9. Group Discussions and Knowledge Sharing

- Peer experience exchange

- Maintenance challenge discussions

- Collaborative solution building

10. Final Review and Assessment

- Key learning recap

- Comprehensive quiz

- Action plan for workplace application

Who Should Attend:

- Maintenance Engineers in industrial operations

- Electrical Engineers specializing in high voltage systems

- Senior Technicians in electrical maintenance

- Subject Matter Experts (SMEs) in power systems