

Basics of Industrial Electricity



Gain a basic understanding of electricity generation and delivery. Learn how electricity is applied to transformers, motors and common electrical devices; how and where these components work and their applications. You will also learn and practice safe methods, how to choose the proper instruments and tools to measure and comprehend the characteristics of electrical signals in terms of voltage, current and impedance (resistance). Gain invaluable experience in using and understanding electricity and its function in an electrical circuit. The course covers all aspects of electricity, including ohm's law, terminology, common circuits, test equipment, safety, generators, motors and relays. Theory and explanations support numerous practical hands-on exercises and can apply to real world situations.

The course content is for apprentices, machine operators, mechanics, technicians, supervisors and other trades people. Its benefit is being able to find, understand and fix electrical problems more easily, thereby reducing downtime

WHAT THIS COURSE COVERS

- Electricity in Simple Terms
- AC and DC Voltage and Current
- Electrical Circuits
- Ground-Fault Protection
- Fuses and Circuit Breakers
- Transformers, Motors and Generators
- Electrical Safety
- Troubleshooting
- Protective Devices
- Common Wiring Devices
- Electrical Drawings and Symbols

WHO SHOULD TAKE THIS

- Apprentices and Experienced HVAC Technicians
- Maintenance Technicians
- Machine Operators
- HVAC Maintenance & Repair Technicians
- Energy Management Personnel
- Fire Alarm Technicians
- Electricians
- Plant and Facility Maintenance Technicians
- Building Engineers
- Stationary Engineers

COURSE OUTCOMES

- Understand Electricity Concepts like Voltage, Current, Wiring, Switches, and Circuits
- Learn how Electricity Applies to Transformers, Motors and Common Electrical Devices.
- Safely Perform Electrical Wiring, Troubleshooting, and Repairs

COURSE AGENDA

- Basic Electricity
- Basics of Multimeters
- Electrical Safety
- Common Wiring Devices
- Conductors and Raceways
- Wires
- Electricians' Tools and Test Equipment
- Generator and Transformers
- Solid State Devices
- Protective Devices
- Electrical Drawing
- Relays and Motors
- Industrial Control Device and Symbol

Lecture Hands-on • **ONSITE:** 2-days (16 hours) • **LIVE ONLINE:** N/A



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