

# Qualified Electrical Workers – Utility

Courses to meet OSHA 1910.269 Standard

✓ Required * May Be Required Depending on Worker Tasks		Generation	Transmission	Distribution	Lineworker
NFPA 70E (Arc Flash) 2024		✓	✓	✓	
Introduction to OSHA	101-70	✓	✓	✓	
Portable Power and Hand Tool Safety	102-03	✓	✓	✓	
Lockout/Tagout	105-01	✓	✓	✓	
Electrical Safety	107-01	✓	✓	✓	
Energized Electrical Equipment Safety	107-02	✓	✓	✓	
Arc Flash Hazard Basics	107-03	✓	✓	✓	
General Concepts and Job Briefings	140-01	✓	✓	✓	
Enclosed Spaces	140-04	✓	✓	✓	
Electrical Clearances	140-09	✓	✓	✓	
Industrial Math: Measurements and Calculations	170-02	*	*	*	
Industrial Math: Fractions, Percentages, and Ratios	170-03	*	*	*	
AC Induction Motors	409-01	✓			
Transformer Design and Components	415-02	✓	✓	✓	
Transformer Connections	415-03	✓	✓	✓	
Medium and High Voltage Switchgear	417-03	✓	✓	✓	
General Switchgear Maintenance	417-04	✓	✓	✓	
Breaker Specific Maintenance	417-05	✓	✓	✓	
Electrical Faults and Current Ratings	418-01	✓	✓	✓	
Overcurrent Protection, Fuses, and Breakers	418-02	✓	✓	✓	
Wire and Cable Management	421-01	✓	✓	✓	
Making Connections in a Junction Box	421-03	✓	✓	✓	
Medium Voltage Splices and Terminations	423-02	✓	✓	✓	

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Fuses and Circuit Breakers	560-03	✓			
Protective Relays and Instrument Transformers	560-04	✓			
Multimeter	605-01	✓	✓	✓	
Introduction to Engineering Drawings	611-01	✓	✓	✓	
Electrical Drawings	611-03	✓	✓	✓	
Communications Facilities		*	*	*	✓
Excavations		*	*	*	✓
Grounding		*	*	*	✓
Hand and Portable Power Tools		*	*	*	✓
Hazardous Energy Control Procedures		*	*	*	✓
Ladders, Platforms, Step Bolts, and Manhole Steps		*	*	*	✓
Line-Clearance Tree Trimming		*	*	*	✓
Medical Services and First Aid		*	*	*	✓
Overhead Lines		*	*	*	✓
Overhead Lines with Live-Line Bare-Hand Work		*	*	*	✓
Personal Protective Equipment		*	*	*	✓
Power Generation		*	*	*	✓
Special Conditions and Material Handling		*	*	*	✓
Substations		*	*	*	✓
Testing and Test Facilities		*	*	*	✓
Underground Electrical Installations		*	*	*	✓
Vault and Pole-Top Rescue		*	*	*	✓
Working On or Near Exposed Energized Parts		*	*	*	✓

## Electrical Theory

These courses provide a foundation for workers who do not have an electrical background.

Electron Theory	401-01
Magnetism and Electromagnetism Explained	401-02
Ohm's and Kirchoff's Laws Relating to DC Circuits	401-03
Evaluating Series and Parallel DC Circuit Performance	401-04
Determine Circuit Outputs from Specified Inputs	401-05
Introduction to Alternating Current (AC)	402-01
Ohm's and Kirchoff's Laws Involving AC Circuits	402-02
Fundamentals of Three-Phase AC	402-07
Transformer Basics	415-01

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