

# Qualified Electrical Workers – Utility

Courses to meet OSHA 1910.269 Standard

✓ Required * May Be Required Depending on Worker Tasks	Generation	Transmission	Distribution	Lineworker	✓ Required * May Be Required Depending on Worker Tasks	Generation	Transmission	Distribution	Lineworker
NFPA 70E (Arc Flash) 2024	✓	✓	✓		Fuses and Circuit Breakers 560-03	✓			
Introduction to OSHA 101-70	✓	✓	✓		Protective Relays and Instrument Transformers	✓			
Portable Power and Hand Tool Safety 102-03	✓	✓	✓		Multimeter 605-01	✓	✓	✓	
Lockout/Tagout 105-01	✓	✓	✓		Introduction to Engineering Drawings 611-21	✓	✓	✓	
Electrical Safety 107-01	✓	✓	✓		Electrical Drawings 611-03	✓	✓	✓	
Energized Electrical Equipment Safety 107-02	✓	✓	✓		Communications Facilities	*	*	*	✓
Arc Flash Hazard Basics 107-03	✓	✓	✓		Excavations	*	*	*	✓
General Concepts and Job Briefings 140-01	✓	✓	✓		Grounding	*	*	*	✓
Enclosed Spaces 140-04	✓	✓	✓		Hand and Portable Power Tools	*	*	*	✓
Electrical Clearances 140-09	✓	✓	✓		Hazardous Energy Control Procedures	*	*	*	✓
Industrial Math: Measurements and Calculations 170-02	*	*	*		Ladders, Platforms, Step Bolts, and Manhole Steps	*	*	*	✓
Industrial Math: Fractions, Percentages, and Ratios 170-03	*	*	*		Line-Clearance Tree Trimming	*	*	*	✓
AC Induction Motors 409-01	✓				Medical Services and First Aid	*	*	*	✓
Transformer Design and Components 415-02	✓	✓	✓		Overhead Lines	*	*	*	✓
Transformer Connections 415-03	✓	✓	✓		Overhead Lines with Live-Line Bare-Hand Work	*	*	*	✓
Medium and High Voltage Switchgear 417-03	✓	✓	✓		Personal Protective Equipment	*	*	*	✓
General Switchgear Maintenance 417-04	✓	✓	✓		Power Generation	*	*	*	✓
Breaker Specific Maintenance 417-05	✓	✓	✓		Special Conditions and Material Handling	*	*	*	✓
Electrical Faults and Current Ratings 418-01	✓	✓	✓		Substations	*	*	*	✓
Overcurrent Protection, Fuses, and Breakers 418-02	✓	✓	✓		Testing and Test Facilities	*	*	*	✓
Wire and Cable Management 421-01	✓	✓	✓		Underground Electrical Installations	*	*	*	✓
Making Connections in a Junction Box 421-03	✓	✓	✓		Vault and Pole-Top Rescue	*	*	*	✓
Medium Voltage Splices and Terminations 423-02	✓	✓	✓		Working On or Near Exposed Energized Parts	*	*	*	✓

## QEW Plus

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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