

ELECTRIC POWER DISTRIBUTION



One-Year Technical Diploma
31-413-2

Vast Networks of wires and cables transmit the electric power produced in generating plants to individual customers, connect telephone central offices to customer's telephones and switchboards, and extend cable TV to residential and commercial customers. These networks are constructed and maintained by line installers and cable splicers. To install new electric power or telephone lines, line installers or line erectors install poles and terminals, erect towers, and place wires and cables. Power equipment is typically used to dig holes and set poles. Line installers climb the poles or use truck-mounted buckets (aerial work platforms) and use hand tools to attach the cables. When working with electric power lines, installers bolt or clamp insulators onto the poles before attaching the cable. They may also install transformers, circuit breakers, switches, or other equipment. To bury underground cable, they use trenchers, plows, and other power equipment.

The Electric Power Distribution program prepares a student to advance to an electric line technician apprenticeship and related occupations. Students learn how to properly climb poles and install line hardware and equipment. Safety policies and procedures will be taught and strictly adhered to. Students will learn motor vehicle operation and maintenance, attain a working knowledge of ropes and rigging, proper application of rubber protective equipment and use of hot sticks. Students will also study and apply mapping and laying out lines for construction. Students will set poles at proper depth, install guys and anchors of the required strength to hold various lines.

AC and DC current will be taught along with Introduction to Fundamentals of Electricity.

Program Outcomes

- Perform installation, maintenance and repair operations in compliance with published safety standards.

- Acquire appropriate resources to perform necessary procedures and/or troubleshoot sequence.
- Operate tools and test equipment according to the process published in equipment manuals and/or demonstrated in class.
- Install poles and related equipment using proper specifications and accepted procedures.
- Install underground lines and related equipment using industry accepted methods and practices.
- Recognize faulty or damaged equipment and repair or replace.
- Document investment and retirement work orders, record equipment nameplate information and fill out daily time sheets.

Graduates Have Found Employment As

- Electric Utility Lineman
- Cable Maintenance Technicians
- Equipment Operator
- Telephone Repairman
- Cable TV Installer
- Apprentice Line Technician
- Troubleshooter
- Line Inspectors
- Substation Operator
- Cable Splicer

View the entire course listing (<http://catalog.blackhawk.edu/courses/>).

Semester 1		Credits
413-303	Industrial Electricity for Line Technicians	2
413-304	Safety Procedures I-Line Technicians	1
413-310	Electric Power Distribution 1A	5

458-101	CDL for Non Truck Driving Occupations	3
413-315	Electric Power Distribution 1B	5
804-315	Trade Math 1	1
Credits		17
Semester 2		
413-305	Safety Procedures II-Line Technicians	1
413-307	EPD Mapping and Automation	1
413-320	Electric Power Distribution 2A	5
413-325	Electric Power Distribution 2B	5
801-311	Communication	2
Credits		14
Total Credits		31

General Education Courses Within Program

Code	Title	Credits
801-311	Communication	2
804-315	Trade Math 1	1