

# Electrical Distribution Systems

## Mission Statement:

The mission of the Electrical Distribution Systems Technology program is to prepare students for entry employment at any utility offering an apprenticeship program. The Electrical Distribution Systems Technology program strives to provide high quality, occupationally oriented courses with an emphasis on safety and critical thinking skills.

## Program Learning Outcomes:

By the end of the EDS program, students will be able to:

1. Demonstrate and perform appropriate pole-climbing procedures and techniques in the field.
2. Demonstrate a working knowledge of basic safety as it applies to the profession.
3. Apply working knowledge of REA line code & standards.
4. Demonstrate safe and responsible use and operation of all line-worker equipment.
5. Comply with requirements to earn required certifications, to include CPR, OSHA 10, CDL, hurt-man rescue, and flagger.
6. Analyzing a situation, identify all relevant components, and apply critical-thinking skills in creating an appropriate plan when repairing power lines (troubleshooting).
7. Personify behaviors associated with teamwork, professionalism, and customer-service in the field.
8. Demonstrate a working knowledge of the care and procedures associated with gloving energized power lines.
9. Apply knowledge and safety procedures for working on underground power-line construction.
10. Explain the principles of and demonstrate proper installation and repair of transformer banks.
11. Apply basic math and electrical principles in the field.

## **What to Expect:**

Ozarks Technical Community College (OTC) offers the Electrical Distribution Systems (Lineworker) associate degree at the Lebanon Education Center and Richwood Valley Campus and has been running EDS classes since the fall of 2018. Electric utility line technicians install and repair poles, conductors, cables, and operate and maintain equipment used in electrical power and distribution systems. Students in this program will learn to climb wood pole structures, build, and maintain electrical distribution systems, and operate various equipment related to the power distribution field. An emphasis on safe work practices and critical thinking skills will be a part of all coursework.

The EDS program is considered a pre-apprenticeship program, though some utility providers do take our program as the first year or two years of their apprenticeship to become a Journeyman Line worker. You are advised to inquire with the utility provider you are hoping to work for directly to see how our program fits into their apprenticeship structure.

This program involves a lot of physical activity and students will be in the outdoor lab area when it is hot, cold, wet, rainy, and windy. Students will climb poles and work on structures while carrying 30-50lbs of equipment and will be expected to perform various tasks such as mounting cross arms, climbing over obstacles, stringing wire, using various tools, and other such activities as related to the Electrical Distribution Systems field. Students will seek an internship between the first and second year over the summer where they will work with a crew in the field performing distribution system maintenance and repair tasks as directed. Students are expected to earn their Class A CDL without restriction (other than age) by the end of the first semester to prepare for the field and to be ready to learn how to run bucket and digger trucks during the second semester. Everything builds off previous knowledge, so students are expected to have excellent attendance, arrive each day in a condition to work, and follow the instructions they are given. Safety is a key focus of this program and anyone ignoring the safety rules may lose

points, be excluded from lab activities, or even dismissed from the program if the safety violations are serious enough.