

Arab Electric Cooperative Apprentice Training Program Lineman

The following is to be used by supervisors, foreman, and journeymen as a guide in the training of apprentice lineman. The apprentice lineman is expected to engage in the training assignments and will be evaluated monthly and annually as to the proficiency at which the assignment is performed.

Unit 1: Basic Lineman Skills

- Electricity: A Necessity for Modern Life
- Basic Tools and Equipment for Linework
- Linework Communications
- Working Safely
- Ropes, Knots, Splices, and Gear
- Basic Electricity
- Simple Ways of Making Electricity
- Mathematics Review
- More Mathematics
- Introduction to DC Fundamentals

Unit 2: Mathematics and AC Review

- Electricity Generation and Transmission
- Mathematics Review
- Trigonometry and Vectors
- Alternating Current and Circuits Containing Resistance
- Electric Current
- Inductance in Alternating Current Circuits and Impedance in Series Circuit
- Capacitors in AC Circuits
- Series Circuits: Resistance, Inductive Reactance, and Capacitive Reactance
- Protective Grounding
- The Use of Hot Line Tools

Unit 3: Intermediate Lineman Skills & AC Fundamentals

- Mathematics Formula Review
- Safety Review
- Electricity Distribution

- AC Parallel Circuits
- Three Phase Systems
- AC Instruments and Meters
- Measuring Electricity
- Distribution and Transmission Poles
- Stringing and Sagging Operations
- Transformers

Unit 4: Advanced Lineman Skill

- Safety Review
- Line Conductors and Connections
- Underground Distribution Systems
- Maintenance of Transmission Lines
- Transformer Connections and Special Applications
- System Operations
- System Protection
- Work Procedures
- Insulators
- Substations and Operations

Before the apprentice is promoted to the status of journeyman lineman, a review will be conducted to ensure that the employee meets the standards set forth. The construction superintendent, senior foreman, crew foreman, crew sub-foreman, loss control manager and general manager will conduct the review. Each apprentice will be informed as to the conclusions and findings of the review.

TVPPA Distance Learning Test Proctoring Policy

Per the TVPPA E&T Services Policies & Procedures, all tests in the self-study portion of any distance learning programs should be proctored. Though the workbook and textbooks are not permitted for use during the test, copies of necessary charts, graphs, and formulas may be used as reference.

When the student is ready to take a test, a supervisor or local training administrator should proctor that lesson's test in a closed book format. This applies whether the test is hard copy or online. Tests should not be reviewed by the student prior to taking any lesson tests.

Exception: Unit 3 tests of Substation Maintenance, Electrical Metering and Protective Relaying do not require proctoring and are open book format.

Retake policy

You will be allowed to retake any test two times. If you do not successfully complete the test after the second retake, you must re-enroll in the unit, pay a re-enrollment fee, start the unit from the beginning (lesson 1) and submit the entire unit for grading again. All distance learning programs require a passing grade of 70 for each lesson.

Please return all tests to the address below:

Tennessee Valley Public Power Association, Inc.
1206 Broad Street
P. O. Box 6189
Chattanooga, TN 37401

Upon successful completion, enrollees will earn TVPPA Certificate of Completion and Department of Labor Certificate of Completion of Registered Apprenticeship Program if the participating utility or construction company's program is registered with the USDOL Office of Apprenticeship and the apprentice completes both the required number of hours of on-the-job training and the related instruction.