



Northeastern Joint Apprenticeship & Training Committee



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The Northeastern Joint Apprenticeship and Training Program prepares you for the challenges and rewards of a career in the Outside Electrical Industry – building and maintaining America’s electric power line systems – from the ground up. We are registered with the United States Department of Labor. Our National Apprenticeship and Training Standards, have been approved by the Bureau of Apprenticeship and Training. They certify that the Standards conform to the labor standards, which the United States Department of Labor believes are necessary to safeguard the welfare of apprentices as well as producing Qualified Journeyman Linemen.

COURSE DESCRIPTION

The Northeastern Joint Apprenticeship and Training Committee for the Outside Electrical Industry provides apprentice linemen with the following training program:

- *On-the-job training: a minimum of 7,000 hours total, over approximately 3½ years.*
- *Off-the-job training: 144 hours minimum for each year of apprenticeship.*
- *The program is seven periods. Each period is clearly defined as to subject matter and hours of training required.*
- *Off-the-job training provides basic theoretical and “how-to” knowledge. It supports on-the-job training as both progress in scope and difficulty. Study of your at-home course materials will give you the knowledge and the confidence to be effective – and safe – in the field.*

COURSE OBJECTIVE

When you finish, you will understand electrical power transmission and distribution systems– from the ground up. Upon completion of the Northeastern Apprentice Training Program, the International Brotherhood of Electrical Workers will accept you as a Journeyman Lineman.

COURSE TOPICS

Each apprentice shall be required to participate in related instructions away from the job as specified in this section.

Topics to be studied (completed) as part of the required NJATC curriculum shall include, but not be limited to those listed.

FIRST YEAR – 144 HOURS MIN.	<ul style="list-style-type: none">• CLIMBING TECHNIQUE & SAFEGUARDS• ELECTRICAL GROUNDING• ELECTRICAL THEORY• INDUSTRY ORIENTATION• JOB INFORMATION• LINE CONDUCTOR INSTALLATION• MATHEMATICS• OSHA/SAFETY AWARENESS• RIGGING• SAFETY & HEALTH AWARENESS
SECOND YEAR – 144 HOURS MIN.	<ul style="list-style-type: none">• BLUEPRINT READING• DISTRIBUTION ANALYSIS, TESTING & REPAIR• ELECTRICAL THEORY• INDUSTRY ORIENTATION• JOB INFORMATION• LINE CONDUCTOR INSTALLATION• MATHEMATICS• OSHA/SAFETY AWARENESS• STREET LIGHTING• SURVEYING• TRANSFORMERS
THIRD YEAR – 144 HOURS MIN.	<ul style="list-style-type: none">• ALTERNATIVE ENERGY SOURCES• ELECTRICAL GROUNDING• ELECTRICAL THEORY• FIBER OPTICS• INDUSTRY ORIENTATION• JOB INFORMATION• LIVE LINE MAINTENANCE• MARKETING• POWER QUALITY• SAFETY & HEALTH AWARENESS• SUBSTATIONS• SYSTEMS ANALYSIS, REPAIR & CERTIFICATION

HOURS OF WORK

Each apprentice is required to send in a monthly work report detailing the type of work they are doing. This information is closely monitored by the Apprenticeship Sub-Committee to ensure the apprentice's training is diversified in all types of linework. Apprentice rotations are reviewed on a monthly basis.

Work Process	approx. hours of on-the-job training
<p>First Period Perform duties as prescribed by the written policy statement of the Committee, providing for work both on the ground and aloft including climbing to assure suitability for the trade before probationary period expires.</p>	1,000
<p>Transmission – Steel Assembly and erection of steel towers, including cellular towers, placement of footings and materials, attachment of insulators and the stringing, splicing, dead-ending, armor rod installation, and clipping of conductors.</p>	1,000
<p>Transmission – Wood Framing, erection, and guying of wood-poles and the installation of hardware insulators and conductors thereon.</p>	500
<p>Transmission/Distribution – Substations Assembly and erection of steel and wood components and the installation and connection of busses, grounds, switches, circuit breakers, transformers, regulators, and other substation equipment.</p>	1,000
<p>Distribution – New Construction Material handling, framing, and erection of poles, installation of anchors and guys, stringing, splicing, sagging of conductors and fiber on de-energized construction work. Installation of cable and electrical components on de-energized underground (URD) systems.</p>	500
<p>Distribution – Maintenance and Re-Build General maintenance work near energized distribution conductors including pole replacement, conductor replacement, changing insulators and cross-arms, changing and installing transformers, capacitors, regulators, switches, and other electrical components.</p>	500

Street Lighting Installation and maintenance of street lighting systems, traffic systems and the associated control systems.	500
Distribution – Live Line Maintenance Rubber glove work on energized primary and secondary distribution circuits. Hot stick work on distribution, sub-transmission and transmission circuits.	2,000

Total Minimum Hours of On-The-Job Training **7,000**

EVALUATION AND GRADING

Each apprentice is required to satisfactorily complete the National Electrical Course for Apprentice Lineman. They must pass three (3) climbing skills tests at different periods of their apprenticeship to ensure they are competent for Journeyman status.

PHYSICAL REQUIREMENTS

Electrical work is sometimes hazardous and strenuous. Apprentices must be able to function as a part of a highly skilled team dependent on each other for safety and achievement.

Apprentice Training Requirements include the following:

- must be physically and mentally able to safely perform or learn to safely perform essential functions of the job either with or without reasonable accommodations.
- must be able to climb and work from ladders, poles and towers of various heights.
- must be able to crawl and work in confined spaces such as manholes and crawlspaces
- must be able to work outdoors in mild to extreme environmental conditions and sometimes for long hours depending on the job. .

These are some of the many activities of a Lineman:

- Haul poles, towers and material over various terrain with heavy equipment and rigging
- Dig holes for poles, anchors and foundations: dig trenches for underground systems using powered equipment and manual tools
- Construct concrete foundations for towers

- Assemble and erect towers, Lineman climb wood poles to 125 feet, steel poles to 200 feet, and steel towers to 500 feet, or whatever heights may be required
- String, splice, sag and deadend wires and cables
- Install new wires and cables overhead, underground and on poles in circuits energized from 110 volts to 34,500 volts and higher, with proper use of protective clothing and equipment
- Install transformers in new and on existing construction, without service interruption
- Install electrical service lines to customer facilities
- Install street lights and traffic signals
- Build substations
- Repair electric facilities under stormy weather conditions
- Align poles and towers with a surveyor's transit
- Operate line construction equipment. Employ special lineman's tools to best advantage

Job safety and productivity are of the utmost importance to the Northeastern Joint Apprenticeship and Training Committee. Linework is a challenging and risky profession and our first concern is for a safe and healthy work environment. We believe that each apprentice can graduate as a skilled union craftsman.

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Building careers in the outside electrical industry