# ELECTRICAL LINEWORKER TECHNOLOGY

## CERTIFICATE PROGRAM

Electrical lineworkers (ELWs) have skills and job opportunities that are very rare in the modern age. At a time when jobs are always changing and becoming obsolete, the electrical lineworker stays stable.

When storms arrive, someone needs to repair the electrical distribution system. The work is steady, the wages are solid, and the company culture is loyal. Like police officers, the first priority is returning safely home to one's family. If you believe in safety, stability, loyalty, and toughness, come to KVCC's lineworker program.

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*"A person needs to love the outdoors to be a lineworker, and I never regretted getting into it. I make a good living, am part of a company that believes in loyalty, and I have real options to be promoted in the long run. It all started with KVCC."*




### Become a powerline technician to keep the electricity and services flowing



### What Electrical Lineworker Technology graduates do:

- Set electrical/telephone poles
- Observe safety protocols
- Perform cable inspections
- Stay up to date with industry standards
- Install and repair electrical lines
- Troubleshoot and install transformers and reclosures
- Inspect transmission and distribution systems and components
- Install and maintain hardware and equipment associated with the electrical power line industry

### Career Opportunities:

- Electrical companies (outdoors)
- Line construction firms (outdoors)
- Utilities cooperatives (outdoors)
- Training centers and programs
- Telecommunications companies

For further questions about this program, please contact: kvccadmissions@mainecc.edu

# ELECTRICAL LINEWORKER TECHNOLOGY

**Certificate**

**First Semester**

| | | |
|---|---|---|
| ELW150* | Lineworker Training | 8 |
| ETL109* | Direct Current Theory | 3 |
| MAT114 | Technical Math | 3 |

**Second Semester**

| | | |
|---|---|---|
| ELW160* | Lineworker Training II | 8 |
| ENG108 | Technical Writing | 3 |
| ETL110* | Alternating Current Theory | 3 |
| **Total Credits** | | **28** |

## CRITERIA FOR GRADUATION

Students must complete 28 credits in the Electrical Lineworker Technology program and achieve a minimum grade of "C" in all core courses (*). Students must attain a final GPA of 2.0 or higher.

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**Certificate**

## DESCRIPTION

The Electrical Lineworker Technology program is a one-year Certificate program. The program will provide students with the technical background and the manual skills necessary for careers in the installation and maintenance of electrical power, telephone, and cable television systems. Safety, pole climbing, and teamwork are emphasized throughout the program while the student learns and performs overhead and underground construction.

Students will be exposed to such curriculum topics as AC/DC electrical theory, field training, occupational safety, line construction theory, tree trimming and line clearance, rigging, transformers, basic telecommunications, and utility metering. Approximately two-thirds of the program will be devoted to strenuous hands-on skills, allowing students to develop a high degree of proficiency in the use of electrical lineworking equipment and procedures.

Students are required to have a valid Class A CDL or have their Class A Permit AND be enrolled in a program to obtain their Class A license. License is not required, but strongly encouraged. Climbing gear and all necessary tools for the field portion of the program are also required; the climbing gear and tools range in price from $2,900 to $3,200. In addition, students are required to have lineworker safety toe boots with steel shanks; these boots range from $200 to $450.

## PROGRAM MISSION

The Electrical Lineworker Technology Program strives to maintain a high academic standard for teaching and learning lineworker technology through a continuous process of self-assessment and improvement. Students are exposed to a learning environment that is safe and supportive of student growth and achievement. Using modern training equipment, innovative training methods and highly trained faculty members, the ELT program endeavors to fully prepare students for a variety of line occupations.

## EDUCATIONAL OUTCOMES

Upon successful completion of the Electrical Lineworker Technology program, the graduate is expected to:

1. Practice the electrical skills of the profession in a conscientious, responsible, and accountable manner while recognizing the need to continue to expand their technical knowledge and skills.
2. Safely climb poles and operate line bucket trucks and pole setting equipment when performing overhead line construction.
3. Use critical thinking skills and problem-solving techniques, along with acquired analytical skills, to solve problems encountered in residential, commercial, or industrial field situations.
4. Work as part of a team when performing the tasks associated with electrical line work.

## COLLEGE ADMISSION

General admission guidelines can be found on page 34 in the catalog. In addition to these guidelines, applicants must have a CDL (Commercial Driver's License) permit for admission to this program.

The **Electrical Lineworker** program technical standards have been developed to inform students of the nonacademic essential functions of the program and profession. Examples are not all inclusive.

| **Standard** | Essential Function | Examples |
|---|---|---|
| **Communication Oral / Written** | Skills sufficient to communicate information and ideas so others will understand | • Communicate with coworkers and customers |
| **Mobility / Motor Skills** | • Motor skills sufficient to move the hands and use hands to grasp or manipulate objects<br>• Physical ability to coordinate two or more limbs (two arms, two legs or one arm and one leg) while sitting, standing or lying down.<br>• Mobility sufficient to perform physical activities that require considerable use of arms and legs and moving the whole body<br>• Ability to safely operate in and around electricity<br>• Ability to perform basic computer functions | • Sufficient motor function to execute hand movements required to operate tools and equipment in bucket trucks and at heights over 24'. This requires manual dexterity while using Personal Protective Equipment such as rubber gloves and shockproof clothing.<br>• Weight bearing ability sufficient enough to lift and carry weight up to 50 pounds and install equipment overhead. |
| **Physical Strength and Stamina** | • Ability sufficient to lift, carry and, climb | • Physical ability sufficient to work at heights or under structures while carrying tools and equipment.<br>• Be able to climb ladders up to 24' in height while carrying tools and equipment.<br>• Physical abilities sufficient to perform skills in a hot (90+ degree) and cold environment.<br>• Physical ability to use various hand tools.<br>• Work at heights up to 35' while carrying tools and equipment |
| **Sensory**<br>**• Sight**<br>**• Sound**<br>**• Taste**<br>**• Touch**<br>**• Smell** | • Visual skills sufficient to distinguish all primary colors.<br>• Visual skills sufficient to see details at close range and to perceive safe distances/depths.<br>• Sufficient auditory skills to hear tones of various pitches emitted by testers and meters despite peripheral/background noise such as trucks, equipment, or machinery.<br>• Listening skills sufficient to communicate with others | • Have sufficient visual capacity to read prints, schematics, meters and testers.<br>• Sufficient auditory skills to hear equipment running/operating to determine efficiency of operation. |

| **Standard** | Essential Function | Examples |
|---|---|---|
| **Environmental / Occupational Exposure** | • Possible exposure to extreme weather | • Must be able to work effectively in confined spaces such as under structures as well as heights exceeding 24'.<br>• Must be able to tolerate extreme heat and cold.<br>• Must be able to tolerate exposure to noxious chemical compounds including but not limited to acids, acid-like chemicals, solvents, glues, cleaners, oils and refrigerants.<br>• Must be able to wear hard hats, safety glasses, safety equipment and PPE as required by the industry. |
| **Field or Industry Professional Standards** | • Wear safety equipment | |