

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 159



# ELECTRICAL APPRENTICESHIPS

Construction Electrician & Voice, Data, Video Technician



# IBEW LOCAL 159



The International Brotherhood of Electrical Workers represents approximately **820,000 active members and retirees** who work in a wide variety of fields, including utilities, construction, telecommunications, broadcasting, manufacturing, railroads and government. The IBEW has members in both the United States and Canada and stands out among the American unions in the AFL-CIO because it is among the largest and has members in so many skilled occupations.

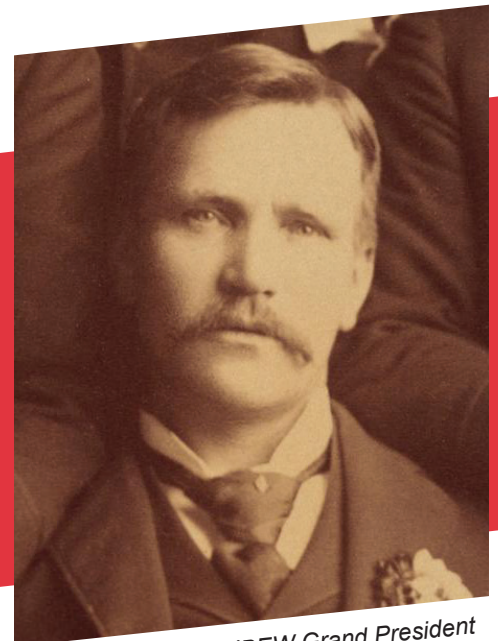
As union members, we bargain collectively with our employers over wages, benefits, and rights.

Most of us have very limited bargaining power as one person, but as a group, we are strong. And, with a good negotiated contract, we have legal protections we would not have otherwise.

## IBEW HISTORY

The nucleus of our union formed in 1890. Wiremen and linemen came from all over the United States to St. Louis to wire buildings and exhibits for an exposition. The workers got together at the end of the workday and talked about their pay and conditions. Their stories were the same: long hours, the average workday was 12 hours in any weather, seven days a week, the pay was low, many men were forced to accept work for \$8.00 a week. The work was hard and dangerous, the fatality rate, was about 50%, the national death rate for electrical workers was twice the national average for all other industries. Henry Miller started the IBEW in 1891 under the following objects which still stand to this day:

- To organize all workers in the entire electrical industry in the United States and Canada, including all those in public utilities and electrical manufacturing, into local unions,
- To promote reasonable methods of work,
- To cultivate feelings of friendship among those of our industry,
- To settle all disputes between employers and employees by arbitration (if possible),
- To assist each other in sickness or distress,
- To secure employment,
- To reduce the hours of daily labor,
- To secure adequate pay for our work,
- To seek a higher and higher standard of living,
- To seek security for the individual,
- And by legal and proper means to elevate the moral, intellectual and social conditions of our members, their families and dependents, in the interest of a higher standard of citizenship.



Henry Miller - First IBEW Grand President



## CONTACT US:

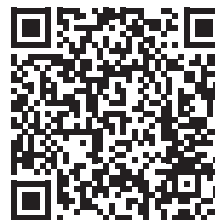


### INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL UNION 159

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Scan the  
QR code to  
learn more!

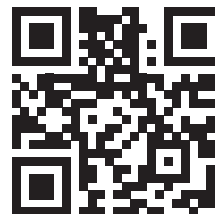


### WI NECA-IBEW APPRENTICESHIP AND TRAINING

Administrative Office  
2730 Dairy Drive, Suite 102  
Madison, WI

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Scan the  
QR code to  
learn more!



# ELECTRICAL CONSTRUCTION JOB DESCRIPTION:

Electricians install, maintain, and repair electrical power, communications, lighting, and control systems in homes, businesses, and factories.

- Read blueprints or technical diagrams
- Install and maintain wiring, control, and lighting systems
- Inspect electrical components, such as transformers and circuit breakers
- Identify electrical problems using a variety of testing devices
- Repair or replace wiring, equipment, or fixtures using hand tools and power tools
- Follow state and local building regulations based on the National Electrical Code
- Direct and train workers to install, maintain, or repair electrical wiring or equipment

Almost every building has an electrical power, communications, lighting, and control system that is installed during construction and maintained after that. These systems power the lights, appliances, and equipment that make people's lives and jobs easier and more comfortable.

Electricians read blueprints, which include technical diagrams of electrical systems that show the location of circuits, outlets, and other equipment. They use different types of hand tools and power tools, such as conduit benders, to run and protect wiring. Other commonly used tools include screwdrivers, wire strippers, drills, and saws. While troubleshooting, electricians also may use ammeters, voltmeters, thermal scanners, and cable testers to find problems and ensure that components are working properly.

## Skills Needed:

- Teamwork
- Problem-solving
- Physical ability
- Customer service
- Communication
- Ability to make ordinary mathematical (algebraic) calculations
- Read and understand instructions

## Suggested Classes:

- Algebra
- Physics
- English
- Shop
- Mechanical Drawing

Go to [www.wijatc.org](http://www.wijatc.org) and click on media for some short videos that help to explain the jobs.





# APPRENTICESHIP REQUIREMENTS

## MADISON AREA ELECTRICAL CONSTRUCTION JOINT APPRENTICESHIP COMMITTEE NOTICE OF APPRENTICESHIP OPPORTUNITY

Applications for the Electrical (Construction) Apprenticeship Program are accepted year-round, from 8:00 a.m. to 4:00 p.m. Monday thru Friday. **All Applicants must remit a processing fee (\$20) as part of their application.** Application closing dates are as follows:  
**4th Friday the month.**

**ALL LISTED INFORMATION MUST BE RECEIVED IN OUR OFFICE TO MEET THE BASIC MINIMUM REQUIREMENTS TO QUALIFY FOR AN INTERVIEW:**

|                         |   |
|-------------------------|---|
| <b>AGE</b>              | Must be at least seventeen (17) years of age to apply and eighteen (18) years of age at time of assignment for an Apprenticeship and Furnish Proof of Age. <b>(To Qualify: Copy of Birth Certificate or Government issued Photo ID Required)</b>  |
| <b>EDUCATION</b>        | Must be a <b>High School Graduate</b> before the Time of Assignment for an Apprenticeship or have attained a General Equivalency Diploma. <b>(To Qualify: Copy of High School Transcripts required and GED Certificate if applicable)</b>   |
| <b>MINIMUM MATH</b>     | Must have completed one (1) full year of high school <u>Algebra</u> with a passing grade of "C", or one (1) post high school <u>Algebra</u> course with a passing grade of "C". Successful completion of Interactive ModuMath Algebra, available at WI Technical Colleges, is also an equivalent to the minimum math requirement.   |
| <b>APTITUDE TEST</b>    | Must attain established norms <b>(score of 4 or better, out of 9)</b> on the NJATC Apprentice Selection Test Battery. Testing is arranged by the Committee.   |
| <b>PHYSICAL ABILITY</b> | Must present or sign a statement that he or she is physically able to perform electrical construction work with or without reasonable accommodation. Applicants who reach employable status must successfully pass a drug screen test before placement in the field.  |
| <b>TRANSCRIPTS</b>      | <b>Must provide official transcript(s) of High School</b> and (if minimum math requirements listed elsewhere) post High School transcript showing courses and grades attained. <b>Transcript must indicate Algebra or list classes that are equivalent to one full year of High School Algebra.</b> <u>You</u> must provide a letter from the school confirming the class is an equivalent to the minimum Math requirement. |
| <b>LICENSE</b>          | Must present or sign a statement that he or she is physically able to perform electrical construction work with or without reasonable accommodation. Applicants who reach employable status must successfully pass a drug screen test before placement in the field.  |

### ADDITIONAL INFORMATION:

The following **may be submitted as additional evidence of qualifications** and will be considered, but are not required:

- Additional Transcripts beyond High School
- Certificates of any additional training
- Letters of recommendation or resumes

**Each Applicant who meets all basic requirements will be interviewed by an Interview Committee.** The interviewers will consider: reliability, interest, attitude, judgment, cooperativeness, as well as other personal traits. Applicants will be selected for the available apprentice vacancies in the order of ranking resulting from rating of interviews.

It is the intent of this Committee, in perpetuation of the basic skills required in the construction industry, to comply with all Federal and State Standards required in the selection and placement of apprentice applicants. The recruitment, selection, employment, and training of apprentices during their apprenticeship, shall be without discrimination because of age, race, color, religion, national origin, sex, creed, handicap, marital status, ancestry, sexual orientation, arrest record, conviction record, or membership in the military forces of the United States or this State. The sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30, and all other applicable state laws.

|                               |  |
|-------------------------------|--|
| <b>TITLE</b>                  | <b>Electrical (Construction) Apprenticeship Program</b>  |
| <b>TERM</b>                   | <b>5 Years</b>   |
| <b>TRAINING</b>               | <b>On-The-Job Training</b> - Minimum 8000 Hours<br><b>Paid Related Instruction</b> - Minimum 700 hours attending Paid Related Instruction. Classes are attended one full day (eight hours) every week for the first two semesters, and one full day (eight hours) every two weeks (2) for the remaining six semesters during the school year. Apprentices are paid their normal wage rate while attending day school.<br><b>Unpaid Related Instruction</b> - Apprentices are required to attend courses of Unpaid Related Instruction classes as designated by the Committee, on their own time. This is usually accomplished in a night school setting. |
| <b>WAGES</b>                  | The Electrical (Construction) Apprenticeship Program is divided into Six (6) Pay Periods. The wage at each level is a designated percentage of the Journeyworker's Base Wage Rate. Advancement to each subsequent level is determined by successful completion of hours and training acquired, and minimum time in the program.  |
| <b>COMPLETION</b>             | Upon completion of the Madison Area Electrical (Construction) Apprenticeship Program, apprentices are to be advanced to Journeyworker Electrician status.  |
| <b>COMMITTEE JURISDICTION</b> | All of Sauk, Columbia, Iowa, and Dane Counties; and portions of Marquette, Green Lake, and Dodge Counties.   |

*Applicants are required to notify the Application Site of any changes in Address.*

# VOICE DATA VIDEO TECHNICIAN JOB DESCRIPTION:

**Telecommunications Installer-Technicians** install circuits and equipment for telephones, computer networks, video distribution systems, security and access control systems, and other low voltage systems. Major duties for **Telecommunications Installer-Technicians** include:

- Planning and Initiating Projects
- Installing Underground Voice or Data Circuit Feeders to Entrance Facilities
- Providing or Connecting to the Grounding Electrode System
- Installing Pathways and Spaces for Installation of Low Voltage Wiring
- Installing and Terminating Wires and Cables
- Installing Local Area Network (LAN) Cabling Systems
- Installing Security and Access Control Systems
- Installing Communications and Sound Distribution Systems
- Testing and Repairing Video, Voice, and Data Systems

In performing these duties, **Telecommunications Installer Technicians** must use many different kinds of tools, ranging from simple ones and two-hand tools (such as screwdrivers and cable cutters) to power-assisted tools like electric drills and screw guns. They occasionally operate heavy equipment such as trenchers.

Over the course of the three-year **Telecommunications Installer- Technicians** apprenticeship program, apprentices must become competent in many technical areas. A recent job analysis identified 124 specific areas of knowledge that are important for **Telecommunications Installer-Technicians'** job performance. A few of the most important ones are knowledge of:

- Color Codes (Proper Termination Sequence)
- Structured Wiring
- Cable Testing Requirements and Standards
- Local Area Networks (LAN)
- The Basics of Telephony
- Blueprints, Including Symbols Used
- Electronic Industries Association (EIA)/  
Telecommunications Industry Association (TIA) Standards
- The Principles of Grounding
- First Aid
- Hazardous Materials
- Proper Wire/Cable to Use in Different Circumstances

**Some of the most important skills to be learned are:**

- Skill at Terminating Twisted Pair Cable
- Skill at Terminating Fiber Optic Cable
- Skill at Troubleshooting Through Segmentation and Isolation
- Skill at Diagnosing the Source of Equipment Malfunctions
- Skill at Splicing Copper, Coaxial and Fiber Optic Cable
- Skill at Performing CPR

Go to [www.wijatc.org](http://www.wijatc.org) and click on media for some short videos that help to explain the jobs.





# APPRENTICESHIP REQUIREMENTS

## MADISON AREA ELECTRICAL CONSTRUCTION JOINT APPRENTICESHIP COMMITTEE

### NOTICE OF APPRENTICESHIP OPPORTUNITY

Applications for the Electrical (Voice, Data, Video) Apprenticeship Program are accepted year-round, from 8:00 a.m. to 4:00 p.m. Monday thru Friday. **All Applicants must remit a processing fee (\$20) as part of their application.** Application closing dates are as follows: **4th Friday the month.**

**ALL LISTED INFORMATION MUST BE RECEIVED IN OUR OFFICE TO MEET THE BASIC MINIMUM REQUIREMENTS TO QUALIFY FOR AN INTERVIEW:**

|                         |   |
|-------------------------|---|
| <b>AGE</b>              | Must be at least seventeen (17) years of age to apply and eighteen (18) years of age at time of assignment for an Apprenticeship and Furnish Proof of Age. <b>(To Qualify: Copy of Birth Certificate or Government issued Photo ID Required)</b>  |
| <b>EDUCATION</b>        | Must be a <b>High School Graduate</b> before the Time of Assignment for an Apprenticeship or have attained a General Equivalency Diploma. <b>(To Qualify: Copy of High School Transcripts required and GED Certificate if applicable)</b>   |
| <b>MINIMUM MATH</b>     | Must have completed one (1) full year of high school <u>Algebra</u> with a passing grade of "C", or one (1) post high school <u>Algebra</u> course with a passing grade of "C". Successful completion of Interactive ModuMath Algebra, available at WI Technical Colleges, is also an equivalent to the minimum math requirement.   |
| <b>APTITUDE TEST</b>    | Must attain established norms <b>(score of 4 or better, out of 9)</b> on the NJATC Apprentice Selection Test Battery. Testing is arranged by the Committee.   |
| <b>PHYSICAL ABILITY</b> | Must present or sign a statement that he or she is physically able to perform electrical construction work with or without reasonable accommodation. Applicants who reach employable status must successfully pass a drug screen test before placement in the field.  |
| <b>TRANSCRIPTS</b>      | <b>Must provide official transcript(s) of High School</b> and (if minimum math requirements listed elsewhere) post High School transcript showing courses and grades attained. <b>Transcript must indicate Algebra or list classes that are equivalent to one full year of High School Algebra.</b> <u>You</u> must provide a letter from the school confirming the class is an equivalent to the minimum Math requirement. |
| <b>LICENSE</b>          | Must present or sign a statement that he or she is physically able to perform electrical construction work with or without reasonable accommodation. Applicants who reach employable status must successfully pass a drug screen test before placement in the field.  |

### ADDITIONAL INFORMATION:

The following **may be submitted as additional evidence of qualifications** and will be considered, but are not required:

- Additional Transcripts beyond High School
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- Letters of recommendation or resumes

**Each Applicant who meets all basic requirements will be interviewed by an Interview Committee.** The interviewers will consider: reliability, interest, attitude, judgment, cooperativeness, as well as other personal traits. Applicants will be selected for the available apprentice vacancies in the order of ranking resulting from rating of interviews.

It is the intent of this Committee, in perpetuation of the basic skills required in the construction industry, to comply with all Federal and State Standards required in the selection and placement of apprentice applicants. The recruitment, selection, employment, and training of apprentices during their apprenticeship, shall be without discrimination because of age, race, color, religion, national origin, sex, creed, handicap, marital status, ancestry, sexual orientation, arrest record, conviction record, or membership in the military forces of the United States or this State. The sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30, and all other applicable state laws.

|                               |   |
|-------------------------------|---|
| <b>TITLE</b>                  | <b>Electrical (Voice, Data, Video) Apprenticeship Program</b>   |
| <b>TERM</b>                   | <b>3 Years</b>  |
| <b>TRAINING</b>               | <b>On-The-Job Training</b> - Minimum 6000 Hours<br><b>Paid Related Instruction</b> - Minimum 432 hours attending Paid Related Instruction. Classes are attended one full day (eight hours) every other week during the school years. Apprentices are paid their normal wage rate to while attending day school.<br><b>Unpaid Related Instruction</b> - Apprentices are required to attend Unpaid Related Instruction classes as designated by the Committee, on their own time. This is usually accomplished in a night school setting. |
| <b>WAGES</b>                  | The Electrical (Voice, Data, Video) Apprenticeship Program is divided into Six (6) Pay Periods. The wage at each level is a designated percentage of the Installer-Technician's Base Wage Rate. Advancement to each subsequent level is determined by successful completion of hours and training acquired, and minimum time in the program.  |
| <b>COMPLETION</b>             | Upon completion of the Madison Area Electrical (Voice, Data, Video) Apprenticeship Program, apprentices are to be advanced to Installer-Technician status.  |
| <b>COMMITTEE JURISDICTION</b> | All of Sauk, Columbia, Iowa, and Dane Counties; and portions of Marquette, Green Lake, and Dodge Counties.  |

*Applicants are required to notify the Application Site of any changes in Address.*



**LOCAL 159**

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