





# IBEW LOCAL 134 AND THORNTON FRACTIONAL DISTRICT 215

### **ELECTRICAL CONSTRUCTION PROGRAM**

Students who choose to pursue training through this program will commit to two levels of classroom/laboratory instruction. Upon successful completion of the Electricity Program, graduates will be provided mentored on-the-job training for a period of one year as they transition into the world of electrical construction.

## **ELECTRICITY LEVEL I**

Students will be provided the opportunity to learn what a professional construction electrician career entails and an opportunity to develop the basic skills of residential electrical system installation during the first semester of instruction. Students will gain hands on experience with both hand tools and power tools in a simulated classroom work environment and be mentored in the application of construction industry-standard techniques.

Students in Electricity I will know:

- Basic electrical theory
- Parallel and series circuit construction
- Jobsite safety protocol and PPE usage
- Safe power tool operation protocol
- Jobsite mathematics
- Practical wire installation methods
- Electrical device and light fixture installation
  techniques
- Electrical conduit installation methods

Students in Electricity I will be able to:

- Demonstrate safe hand tool and power tool usage
- Utilize personal protective equipment properly
- Apply understanding of basic construction blueprints
- Master electrical industry tools
- Complete practical residential wiring projects
- Bend and install EMT conduit
- Install, splice and terminate electrical wires
- Wire common electrical devices
- Articulate the fundamentals related to the operation of a residential electrical system



## **ELECTRICITY LEVEL II**

As a student in the Electricity II program, students will be provided the opportunity to develop the skills necessary to pursue a career as a professional construction electrician. Students will have the opportunity to work in a simulated work environment, utilizing the same tools and equipment used by professionals working in the construction industry. Students will also develop knowledge of electrical theory and engineering as well as construction project management skills such as blueprint reading.

Students in Electricity II will know:

- Applied electrical theory and Ohm's Law calculations
- Parallel and series circuit schematics
- Jobsite safety protocol and PPE usage
- Safe power tool operation protocol
- Blueprint reading and scale drawing techniques
- Advanced residential wire installation methods
- Electrical device and light fixture construction and operation
- Advanced electrical conduit installation

Students in Electricity II will be able to:

- Demonstrate safe hand tool and power tool usage
- Utilize personal protective equipment properly
- Complete calculations of electrical circuits to find voltage, current and resistance
- Explain the fundamentals of electricity, it's production and distribution
- Read and create construction blueprints
- Demonstrate competency in the usage of electrical industry tools
- Complete practical residential wiring projects
- Demonstrate competency in the bending and installation of EMT conduit
- Participate in the installation of a complete residential electrical system
- Install low voltage communication, CCTV and security wiring systems
- Competently articulate the operation of a residential electrical system

By the end of the program, students will have a formidable knowledge base of the principles of electrical theory and the practical application of installation techniques. These skills and knowledge provide a foundation for a student to pursue a career in the electrical construction industry through IBEW 134's Electrical Trainee Program, a one year paid preapprenticeship. Students may also apply these skills to advanced training related to careers in fields such as Electrical Engineering, Construction Project Management, Industrial Technology, or Electrical construction and maintenance. Students will gain valuable experience with the safe operation and repair of electrical systems and learn how to recognize quality installation methods to make yourself a more informed consumer.



## **IBEW LOCAL 134 TRAINEE PROGRAM**

### What is it?

The IBEW 134 Trainee Program is a post-secondary employment opportunity. Students from the Thornton Fractional 215 Electricity Program who fulfill the eligibility requirements will be provided with electrical construction industry training for a period of one week following their graduation from high school. Upon successful completion of the training, students will be assigned to work for an electrical contractor in Cook County for a period of one year. During this year, the Trainee will be mentored through the application to Local 134's Apprenticeship Program and will receive test prep instruction related to the Apprenticeship test. During this time period, Trainees will receive invaluable work based learning and on the job training. Trainees earn an hourly wage, which is currently \$15.30/hr.





### What will I be doing?

Trainees work on active construction sites in support roles alongside Journeymen and Journeywomen. Typical jobsites could include data centers, office buildings, new construction and renovation. Tasks will include unloading of materials and equipment, organization of electrical materials, general jobsite cleanup, and assisting with electrical tasks like cable pulling and light fixture preparation. Trainee progress and performance is monitored by jobsite foremen and safety personnel. Trainees are expected to work a typical work week, Monday through Friday, 8 hours per day. Absenteeism and tardiness are not tolerated and will result in the Trainee being removed from the program.

### How do I qualify?

If this pathway sounds right for you, the process for eligibility starts now. To be eligible, the candidate must:

- Successfully complete course requirements for Electricity Levels I and II
- Maintain a 90% attendance record for Electricity classes
- Have a valid Driver's License.
- Pass a drug screening.
- Pass a physical exam and agility test.
- Pass a background check.
- Provide copies of their social security card and birth certificate

