

Electrical & Electronics

High value skills training for industry

The National Transportation Center's **Essential Electrical and Electronics Skills training boot camps** add and validate valuable skills for your employees. Enroll your technicians to expand your service capabilities, reduce rework, and optimize your technicians' time. This intensive, competency-based, industry-vetted training experience delivers the skills you need in the shortest amount of time.

How it works

This boot camp is a combination of intensive online training and in-person practical training with embedded skills validation. Participants can complete skills training in as little as three weeks, depending on the time available.

➤ **Phase 1: Launch (two hours)**

Participants attend a two-hour orientation to learn expectations and gain facility with online training.

➤ **Phase 2: Online training (two weeks to two months)**

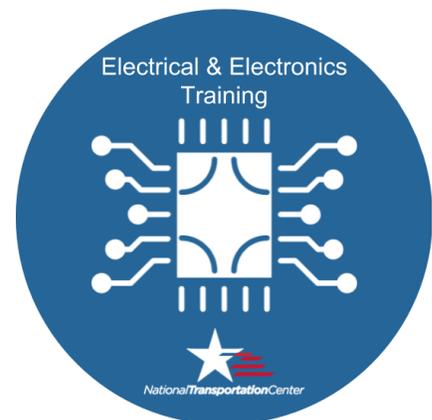
Our state-of-the-art online training includes deep knowledge training, skill drills, simulators, and plenty of assessments so that participants are ready to excel in their in-person training and skills validation. Participants can take the time they need to complete this work remotely from their home or workplace.

➤ **Phase 3: Practicum live training and skills validation boot camp**

Over two (2), intense, 6-hour days, participants train on high value competencies for the shop and validate their skills by *actually completing tasks* that you need them to be able to do. All results and evidence become part of the participant's NTC Competency Transcript.

➤ **Equipment perks**

All participants receive a tool set as part of their boot camp experience at the beginning of the practicum (hands-on) training, ensuring that they have the right tools and the right skills to complete all their new tasks.



Contact: service@nationaltransportationcenter.com

Essential Electrical and Electronics Skills Curriculum

This training program provides participants with an overview of vehicle electrical systems, along with training and validation for high value skills used in the shop. Participants will be introduced to the safety and operation of equipment and tools used in the electrical diagnosis and repair industry. Participants will study the fundamentals of electricity and electronics. By the end, they demonstrate competencies while practicing safe shop behaviors for working with electrical systems.

Trained competencies



1. Describe the basic laws of electricity and circuit construction.
2. Identify electrical symbols and components.
3. Calculate resistance, current, and voltage problems using Ohm's Laws.
4. Perform voltage, current, and resistance measurements using the proper measurement devices.
5. Perform voltage drop testing on multiplex and non-multiplex circuits.
6. Perform basic battery testing and diagnosis.
7. Conduct inspection and diagnosis of starting and charging systems.



Built by Experts

David Jones is an industry expert in everything you care about: electrical and electronics, technical training, and business. He brings more than ten years of progressive technician and training experience to his curriculum development, is a published author in *Electricity and Electronics*, and has helped hundreds of technicians grow their skills for industry.

Key knowledge



1. Electricity theory basics
2. Electrical circuit basics
3. Electrical Schematic Reading
4. Ohm's Law
5. Circuit diagnostic basics
6. Battery operation and testing
7. Starting and charging system operation and testing

Costs



We want to help all individuals access our training and develop a great career. We support individuals with special, competitive programs including scholarships, industry-sponsored training funds, and job-placement support.

See current costs and funding opportunities here:
<https://nationaltransportationcenter.com/funding/>