



Building Foundational Skills for the Transit Workforce

Launching the Transit Core Competencies Curriculum (TC3)

June 2, 2026



U.S. Department of Transportation

Federal Transit Administration

A program of the **Federal Transit Administration** administered by the International Transportation Learning Center



Transit Workforce Center – Mission



Operated by the **International Transportation Learning Center (ITLC)**, the **Transit Workforce Center (TWC)** is the Federal Transit Administration’s national technical assistance center for transit workforce development. TWC supports the workforce development needs of urban, suburban, tribal, and rural public transportation entities across the country.



TWC Services

Targeted
Technical Assistance



Registered Apprenticeship
(ATTAIN)



Transit Workforce Data
Dashboard

Mentor Development



Resource Center

Transit Core
Competencies
Curriculum (TC3)



Funding Information



Recruit • Hire • Develop • Retain

National Transit
Frontline Worker
Recruitment
Campaign



Fleet Transition
and New
Technologies



Today's Agenda

1. Why TC3?
2. What is TC3?
3. Program Overview
4. Electrical Foundations Launch
5. Available Resources and Support
6. Future Release
7. Questions



Transit Workforce Challenges

Across the country agencies report:

- Need to recruit and prepare new hires, who often enter with foundational skills gaps
- Experienced employees are retiring
- Limited resources and capacity for skills development





Introducing TC3: Program Overview

TC3 provides foundational courses in:

- Electrical Foundations
- Mechanical Foundations
- Shop Math
- Computer Basics
- Industry Awareness
- Workplace Relations





Industry Driven Collaboration & Development

Developed with:

- Transit subject matter experts (SMEs)
- Maintenance and operations trainers
- Agency leadership
- Union and frontline representatives

Tested through:

- Pilot courses
- Range of participants
- Agency feedback
- Curriculum reviews

Ready to Implement



TC3 Foundational Technical Courses

Electrical



Mechanical



Math



Computers





TC3 Career Awareness and Workplace Skills Courses



Industry Awareness



Workplace Relations



Release Roadmap

AVAILABLE TODAY

COMING SOON



**Electrical
Foundations**

**JUNE
2026**



**Mechanical
Foundations**

**JULY
2026**



**Shop
Math**

**JULY
2026**



**Computer
Basics**

**AUGUST
2026**



**Industry
Awareness**

**SEPTEMBER
2026**



**Workplace
Relations**

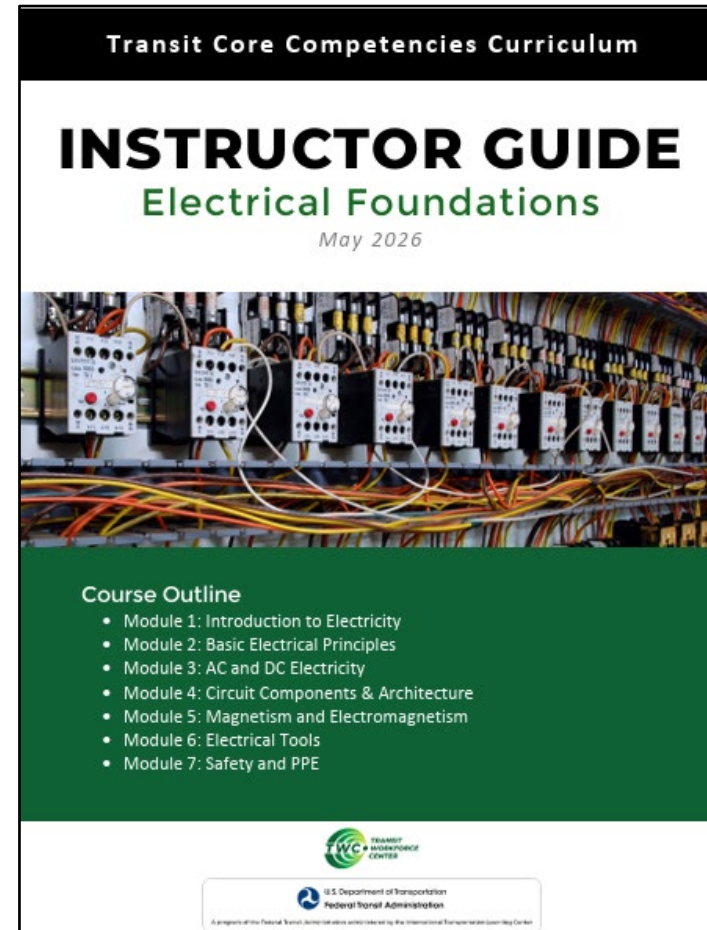
**SEPTEMBER
2026**



Electrical Foundations

Seven Modules

1. Introduction to Electricity
2. Basic Electrical Principles
3. AC and DC Electricity
4. Circuit Components & Architecture
5. Magnetism and Electromagnetism
6. Electrical Tools
7. Safety and PPE





Built to Support Both Learners and Instructors

- ✓ Easy for trainers to implement
- ✓ Focused on practical job application
- ✓ Engaging activities and discussions
- ✓ Consistent across locations and instructors
- ✓ Assessment tools to track learner progress
- ✓ Flexible modules that can be used independently or as a complete course

Inside the TC3 Course Materials

Instruct

We'll use a sim

- How atom
- How elect
- How elect

Transit Core Competencies Curriculum – Instructor Survey Form

Name (Optional): _____ Agency: _____

Basic Electrical – Instructor Post Course Survey

Modules Facilitated:	
Number of Course Participants:	

Instructor Guide

1. Did you use the instructor's guides (both the core guide and module toolkits) while teaching this course? Put a check next to the statement that best describes how much you used the instructor guide.

- Used the instructor's guide a lot
- Used the instructor's guide some
- Did not use the instructor's guide to teach

2. Rate the usefulness of the instructor guides to teach this course? (Please circle)

Instructor	0	-	-	-	-	1	-	-	-	-	2	-	-	-	3	-	-	-	4	-	-	5
Guide	(Not helpful at all) (Very helpful)																					

3. What elements of the instructor guides seem helpful during instruction? **Please explain.**

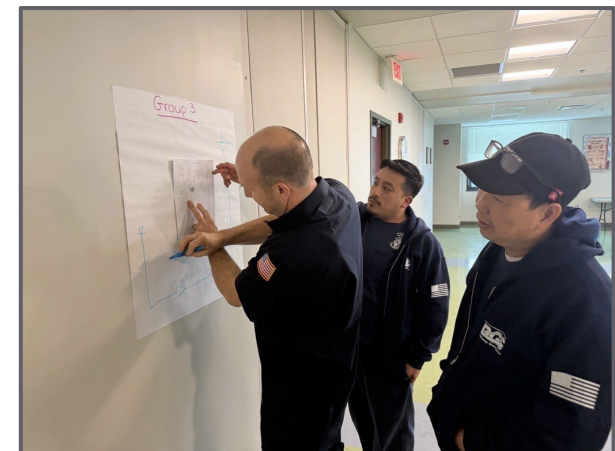
4. What elements or parts (if any) of the instructor guide seemed confusing or not useful during instruction? Please explain, give examples and page numbers if possible.

5. If you did not use the instructor's guide in preparation to teach this course, why not? **Please explain.**

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Electrical Foundations Delivery



Montgomery County | Rockville, MD | May 2026



Participant Feedback

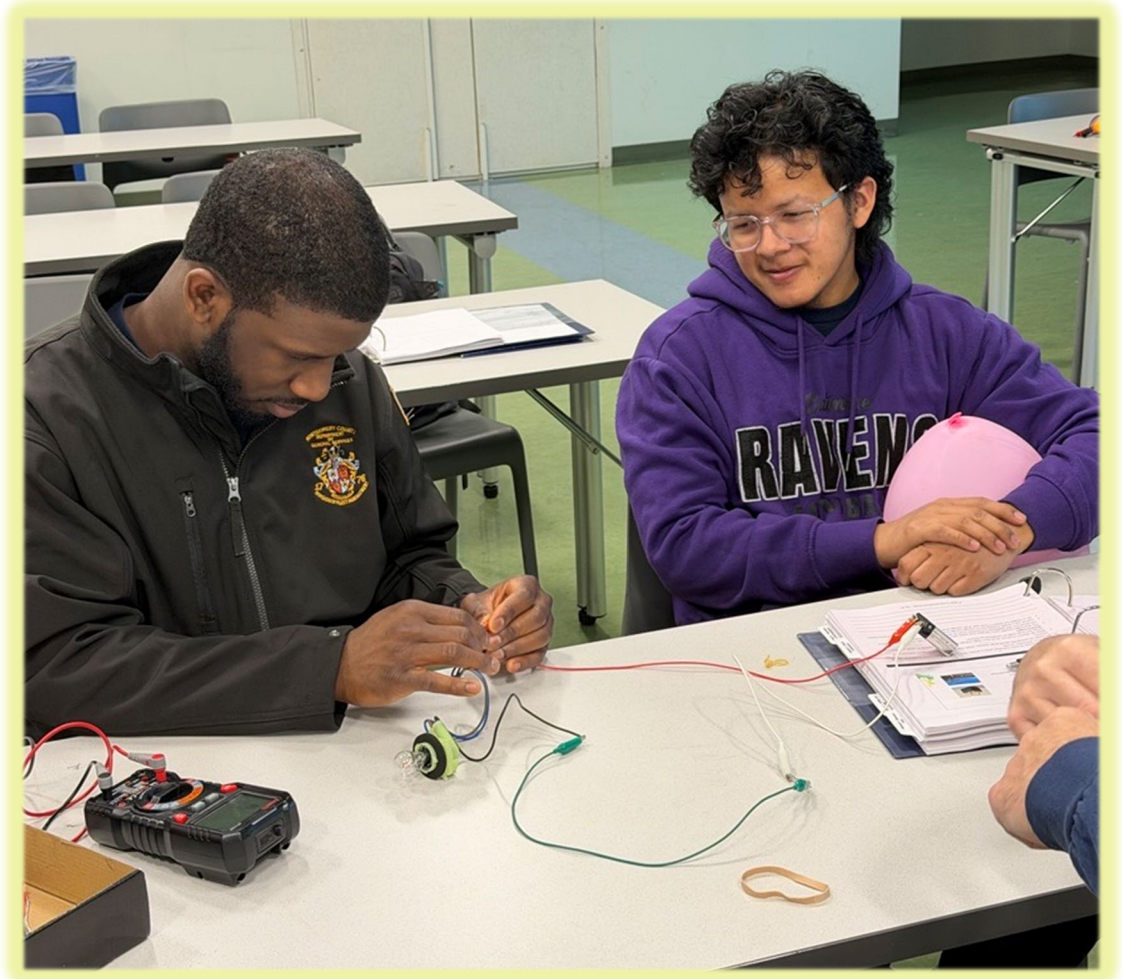
- One of the few courses that offers material that matches 100% with the class progression.
- This was a great course to fill in the gaps of the fundamentals, to realize what makes things work the way they do and understand how to diagnose the issue at hand.
- I went through a similar course, it was nice, but where you really nail it is you have a series of exercises where you involve the group; the way that you present and let us work in our mind, it works very well.





Ways To Use The TC3 Program

- Train new hires
- Upskill current employees (or refresher training)
- Support apprenticeship programs
- Career awareness and pipeline programs





How to Get Started

1. Visit the TC3 page on the TWC Website
2. Download materials
3. Review the curriculum
4. Request instructor resources
5. Contact TWC for support
6. Keep an eye out for future course releases and implementation support webinars

Electrical Foundations Course Support Resources ▼

Evaluation and Feedback ▼

Module 1: Introduction to Electricity ▼

Module 1: Introduction to Electricity ▲

Module 1 introduces the foundational concepts of electricity and their role in transit maintenance environments. Learners explore how electricity works at the atomic level, how electrical current flows through circuits, and why voltage, current, conductors, and insulators are essential to modern electrical systems.

The module also examines the history and development of electricity, including key innovators whose discoveries shaped today's electrical technologies. Participants build an understanding of direct current (DC) and alternating current (AC), electrical generation and transmission, and the importance of safe electrical work practices.

Module 1: PowerPoint [Download](#)

Module 1: Participant Resource Guide [Download](#)

Q&A



Thank You!



Kristen Ribaudo

Program Manager, Instructional Design

kribaudo@transportcenter.org

www.transitworkforce.org