



TENNESSEE COLLEGE
OF APPLIED TECHNOLOGY
SHELBYVILLE

**Industrial Electricity
Dual Credit Agreement**

Program Description: This program is designed for today's technicians requiring a broad base of information. The program furnishes the basic theories, principles, practices, experiments, and real work experience needed to solve every day problems encountered by electrical technicians in installation, maintenance, troubleshooting, repairs and operation of electrical equipment. For more information, visit <https://tcatshelbyville.edu/programs/industrial-electricity>.

Instructor(s): Shannon Long - shannon.long@tcatshelbyville.edu; Jeremy Gokey - jeremy.gokey@tcatshelbyville.edu

Total Time Commitment of Program: 1728 clock hours

Required Secondary Program of Study: Mechanical, Electrical, and Plumbing (MEP) Systems (Electrical Systems)

Postsecondary Course(s) for which Dual Credit will be Awarded: Orientation and Safety; Basic Principles and Meters; Basic Electronics

Assessment Range and Hours Awarded:

- 0-79 = 0 clock hours
- 80-100 = 185 clock hours

Skill Assessment:

Assessments will include both hands-on and written evaluations.

- NCCER CORE Curriculum = 72.5 clock hours
 - Basic Safety – 12.5 clock hours
 - Introduction to Construction Math – 10 clock hours
 - Introduction to Hand Tools – 10 clock hours
 - Introduction to Power Tools – 10 clock hours
 - Introduction to Construction Drawings – 10 clock hours
 - Introduction to Basic Rigging – 7.5 clock hours
 - Basic Communication Skills – 7.5 clock hours
 - Basic Employability Skills – 7.5 clock hours
 - Introduction to Material Handling – 5 clock hours
- NCCER Electrical Level 1 = 112.5 clock hours
 - Orientation to the Electrical Trade - 2.5 clock hours
 - Electrical Safety - 10 clock hours
 - Introduction to Electrical Circuits - 7.5 clock hours

- Electrical Theory - 7.5 clock hours
- Introduction to the National Electrical Code® - 7.5 clock hours
- Device Boxes - 10 clock hours
- Hand Bending - 10 clock hours
- Raceways and Fittings - 20 clock hours
- Conductors and Cables - 10 clock hours
- Basic Electrical Construction Drawings - 7.5 clock hours
- Residential Electrical Services - 15 clock hours
- Electrical Test Equipment - 5 clock hours

Aligned Industry Certifications and Hours Awarded:

- OSHA 10 = 10 clock hours
- NCCER CORE Curriculum = 72.5 clock hours
- NCCER Electrical Level 1 = 112.5 clock hours

Total Possible Dual Credit Hours Awarded from TCAT Shelbyville Assessment: 185 clock hours

Total Possible Dual Credit Hours Awarded from Industry Certifications: 195 clock hours

Disclaimer: The maximum possible award that a student can earn is 432 clock hours.