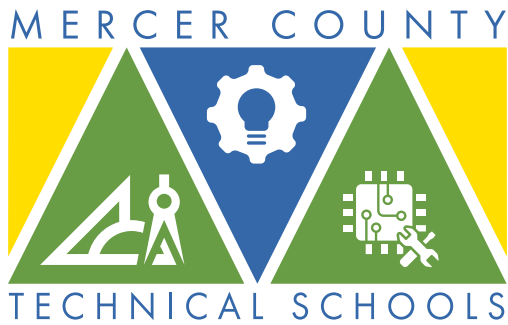




Electrician

Assunpink Center

This program prepares students for the principles of residential and commercial electrical systems. Students learn the technical knowledge and skills necessary to install, operate, maintain, and repair residential, commercial, and industrial electrical systems. Students will work with DC and AC motors, controls, electrical distribution panels, circuit diagrams using the National Electrical Code (NEC), and blueprint reading. Students are exposed to renewable energy and cost-benefit analysis of installation. At the completion of this program, students may obtain employment as an electrical apprentice, electrician helper, electrician, or journeyman electrician.

In addition to hands-on industry training, students have the opportunity to obtain their OSHA 10 certification. This industry-recognized certificate provides entry-level electricians with a general awareness of recognizing and preventing hazards on a construction site. All students join their respective Career Technical Student Organization, Skills USA, and are continually challenged as they compete in local, regional, and state-level competitions. In addition to the industry-valued credentials, students who successfully complete this program may be afforded prior learning assessment (PLA) credits with Mercer County Community College. In addition, students will navigate through the Electrical Interim Credential program, composed of 50 lessons that, in total, represent the five core courses taken by first-year electrical apprentices.

Electrician I

Grade Level: 11 **Credits: 20**

Year one (1) students begin with an emphasis on proper job safety on their way to earning the OSHA Safety 10-Hour Certificate. Students learn about the fundamentals of electricity, material identification, mathematics as they relate to electrical work, electrical theory related to alternating and direct currents, and the reading and building of construction drawings. The students learn wiring methods for a variety of building spaces both residential and commercial, special occupancies, and about the proper use of NEC 2023 equipment and practices. The students learn to work safely around electricity and to use the proper tools in simulated environments. Students will also take the NOCTI Job Ready assessment which can be used at the post-secondary levels for the National College Credit Recommendation Service of 3 semester hours in Electrical Occupations.

Electrician II

Grade Level: 12 **Credits: 20**

Year two (2) focuses on skills preparing the students for the NOCTI assessment. This includes practice with conduit bodies, the construction and maintenance of EV charging stations, photovoltaic systems, motors and their controls, and generators. Students will also focus on applying all of their skills to pull conductors and their conduit bodies, the environmental challenges with electrical equipment, and obtaining the proper licensing paperwork by the state. Students learn about distribution equipment, green and renewable energy, plus industry employability and professional skills. Students are also provided the opportunity to take advantage of work-based learning opportunities with local business partners as a part of this program. Students will also take the NOCTI Job Ready assessment which can be used at the post-secondary levels for the National College Credit Recommendation Service of 3 semester hours in Construction General Technology, Introduction to Electrical Construction Technology, or Applied Science.

Industry Valued Credentials & Certifications

OSHA 10 certification

NOCTI Job Ready - Electrical Occupations (3029)

NOCTI Job Ready - Electrical Construction Technology (4230)

Articulation Agreements

Mercer County Community College
Thomas Edison State University



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