



# ELECTRICAL, BROADBAND & TELECOMMUNICATIONS

Telecommunications Line Installers and Repairers • Telecommunications Equipment Installers & Repairers • Electrical & Electronics Repairers • Electrical Power-Line Installers & Repairers • Electrical Engineers

## CAREER TECHNICAL COURSE NAME & SUBJECT CODE

## RECOMMENDED ACADEMICS

7	
8	
9	
10	
11	Intro to the Telecom-Power Industry & Safety Construction Electrical Systems Broadband and Fiber
12	Telecommunications and Powerline CDL / Heavy Equipment / Job Placement

## POSTSECONDARY OPPORTUNITIES

\*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS
Power Lineman w/CDL Class A Unrestricted	700
Telecommunications	600
Industrial Maintenance	700
Heavy Equipment	270

## INDUSTRY CREDENTIAL OPPORTUNITIES

- The Fiber Optic Association - Certified Premises Cabling Technician - **12 Points**
- The Fiber Optic Association - Certified Fiber Optics Technician - **12 Points**
- Ohio State Pre-Apprenticeship - **12 Points**
- CPR First Aid - **1 Point**
- OSHA - 10-Hour Training\* - **1 Point**  
(College Credit - CTS001 - 1 Credit Hour)
- Lean Six Sigma Yellow Belt - **3 Points**
- Lean Six Sigma Green Belt - **6 Points**
- Leadership Excellence - Student - **3 Points**
- Ohio Driver's License - **1 Point**

## POTENTIAL PLACEMENT & INCOME -



\*May 2023 State Occupational Employment and Wage Estimates for Ohio

Telecommunications Line Installers & Repairers	<b>\$56,820</b>
Electrical & Electronics Repairers (Commercial & Industrial Equipment)	<b>\$60,280</b>
Telecommunications Equipment Installers & Repairers	<b>\$60,830</b>
Electrical & Electronics Installers & Repairers (Transportation Equipment)	<b>\$73,720</b>
Electrical Power-Line Installers & Repairers	<b>\$82,500</b>
Electrical & Electronics Repairers (Powerhouse, Substation & Relay)	<b>\$90,410</b>
Electrical Engineers	<b>\$102,620</b>

# ELECTRICAL, BROADBAND & TELECOMMUNICATIONS

## PRE-APPRENTICESHIP

11<sup>th</sup> GRADE

### INTRO TO THE TELECOM-POWER INDUSTRY & SAFETY

This introductory electrical course will emphasize electrical theory, materials, and equipment. Students will explore the National Electrical Code and learn worksite safety. They will interpret schematics; construct basic circuits, use test equipment and electrical hand and power tools.

## PRE-APPRENTICESHIP

11<sup>th</sup> GRADE

### CONSTRUCTION ELECTRICAL SYSTEMS

This introductory electrical course will emphasize electrical theory, materials, equipment. Students will explore the National Electrical Code and learn worksite safety. They will interpret schematics; construct basic circuits, use test equipment and electrical hand and power tools.

## PRE-APPRENTICESHIP

11<sup>th</sup> GRADE

### BROADBAND & FIBER

This introductory course presents students with the basic skills, knowledge, and certification in preparation for a career in the broadband industry. This course will cover safe workplace practices and provide an opportunity to earn certificates in OSHA and First AID/CPR. Students will be introduced to the unique working conditions of the industry which include confined space, heights, and weather. Background skills in math, digital literacy, customer service, and computer usage will be reinforced throughout the course. Students will gain technical knowledge through hands-on activities preparing students to become a Certified Premises Cabling Technician and a Certified Fiber Optics Technician through the Fiber Optics Association.

## PRE-APPRENTICESHIP

12<sup>th</sup> GRADE

### TELECOMMUNICATIONS & POWERLINE

The Telecommunications and Powerline course equips students with essential skills in telecommunications and high-voltage power transmission systems. It includes hands-on training in installing, maintaining, and repairing telecommunications lines, such as fiber optic and copper cabling. Students will learn outside plant operations, fiber splicing, cable lashing, and servicing damaged lines. The course also covers high-voltage power transmission principles, focusing on building and maintaining electrical systems. Safety is emphasized, especially around high-voltage equipment. Practical skills taught include ladder safety, bucket truck operations, and pole climbing, ensuring students can effectively test and troubleshoot installed systems.

