# **CONSTRUCTION ELECTRICITY**

### 2020-2021

**Construction Electricity** provides students with the skills required for successful employment in electrical construction positions. Students develop the concepts, knowledge, and skills that are applicable to many other construction occupations. Additionally, this program prepares students for a wide array of post-secondary and career options through the Advanced Career Energy and Power curriculum. By fusing a rigorous academic core with challenging project work and advanced technology in a career pathway program of study, Advanced Career Energy and Power courses give students a greater depth of knowledge and skills to prepare them for more options after high school. Junior students earn simultaneous Advanced Science credit.

#### **Program Highlights:**

- Design and install commercial and residential power systems from "rough in" to "finish"
- Power advanced motor controls while utilizing specialized tools and equipment
- Work with professional electricians on commercial, residential and community projects

#### The Program Focuses on the Following State Approved Courses:

- Construction Technology Core and Sustainable Construction
- Residential Electrical Systems
- Construction Electrical Systems
- Plan Reading

#### COST-FREE COLLEGE CREDIT OPPORTUNITIES

#### College Credit Plus through Owens Community College

- SKT 131: Electrical Prints (3 Credit Hours)
- SKT 171: Electricity: DC Principles (3 Credit Hours)
- SKT 172: Electricity: Mag/DC Motors/Gen (2 Credit Hours)
- SKT 174: Electricity: AC Principles (3 Credit Hours)
- SKT 175: Electricity: Electrical Applications (3 Credit Hours)
- SKT 184: National Electrical Code (3 Credit Hours)

#### **Career Technical Assurance Guides (CTAGs)**

• CTS001: OSHA 10-Hour Safety (1 Credit Hour)

Articulated Credits through Hocking College - Up to 15 Credit Hours

- Advanced Career: Course 1 Energy and Power Foundations
- Advanced Career: Course 2 Energy Transmission and Distribution



- Ohio State Apprenticeship Council Recognized Pre-apprenticeship Program Certificate of Completion (12 Points)
- Electrical Training Alliance Interim Credential (12 Points)
- NCCER Core (6 Points)
- EPA Painters, Repair, Renovation Certificate (4 Points)
- OSHA 10-Hour Training (1 Point)

#### SIMULTANEOUS CREDIT OPPORTUNITIES

• Juniors have the opportunity to earn a simultaneous Advanced Science credit after completion of Advanced Career: Course 1 – Energy and Power Foundations and Course 2 – Energy Transmission and Distribution

| OHIO MEANS JOBS OCCUPATIONS LISTED ACCORDING TO TYPICAL SALARY  |                               |                           |                            |                                |                        |
|---|-------------------------------|---------------------------|----------------------------|--------------------------------|------------------------|
| OCCUPATION TITLE  | TYPICAL SALARY-<br>BOTTOM 10% | TYPICAL SALARY-<br>MEDIAN | TYPICAL SALARY-<br>TOP 10% | EDUCATION LEVEL                | ANNUAL JOB<br>OPENINGS |
| Electricians*   | \$30,480                      | \$52,880                  | \$78,720                   | HS Diploma or Equivalent       | 2,990                  |
| Telecommunications Equipment Installers and Repairers*  | \$27,460                      | \$52,420                  | \$91,160                   | Postsecondary Non-degree Award | 860                    |
| Electrical Engineering Technologists  | \$36,500                      | \$57,970                  | \$97,490                   | Associate's Degree             | 310                    |
| Electrical Engineering Technicians  | \$37,670                      | \$62,120                  | \$82,000                   | Associate's Degree             | 200                    |
| First-Line Supervisors of Construction Trades and<br>Extraction Workers*                                  | \$43,920                      | \$66,360                  | \$99,470                   | HS Diploma or Equivalent       | 1,750                  |
| Electrical Power-Line Installers and Repairers  | \$43,880                      | \$72,560                  | \$96,520                   | HS Diploma or Equivalent       | 240                    |
| Electrical Engineers*   | \$51,190                      | \$84,820                  | \$128,070                  | Bachelor's Degree              | 450                    |
| Construction Managers*  | \$55,420                      | \$89,650                  | \$175,830                  | Bachelor's Degree              | 1,200                  |
| JOB OUTLOOK COMPILED BY OHIO MEANS JOBS AS OF OCTOBER 2020; VISIT OHIOMEANSJOBS.COM FOR MORE INFORMATION. |                               |                           |                            |                                |                        |

\*Denotes an In-Demand Occupation in the State of Ohio

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# TECHNICAL CAREERS —

- Master Electrician Residential & Commercial
- Journeyman Electrician Residential & Commercial
- Low Voltage System Technician – Fire & Security
- Business Owner
- Job Foreman
- Marine Electrician
- Industrial Control Specialist
- Electrical Estimator
- Maintenance Facility Electrician
- Instrumentation Installer
- Theme Park Electrician
- Aviation/Aerospace Electrician

ACADEMICS

EXPERIENCES



- Electrical Engineer
- Electrical System Project Designer
- Project Manager
- Electrical Inspector
- Home Automation Installer
- System Integrator
- Renewable Energy System
  Designer
- Power Plant Electrician
- Utility System Infrastructure Designer
- Electrical Designer/Architect
- Electrical Instructor
- Nuclear Engineer

## ENTRY-LEVEL CAREERS

- Apprentice Electrician
- Apprentice Fire Alarm Technician
- Apprentice Security System
  Installer
- Cable Television Installer
- Telecommunications Wire Puller
- Customer Service/Sales
  Representative
- Material and Equipment Managers
- Office Managers
- Utility Workers

**PROFESSIONAL SKILLS** 

PASSION

- Manufacturer's Representative
- Material and Equipment Delivery Person
- Electrical Meter Reader



# **CONSTRUCTION ELECTRICITY**

For Career Tree\* tools and materials please vi TFS results.com and call our team at 330.840.268