

**CTE & INDUSTRY  
PRESENTATION**



# Agenda

**Introduction**

**Courses**

**Job Data**

**Work-Based Learning**



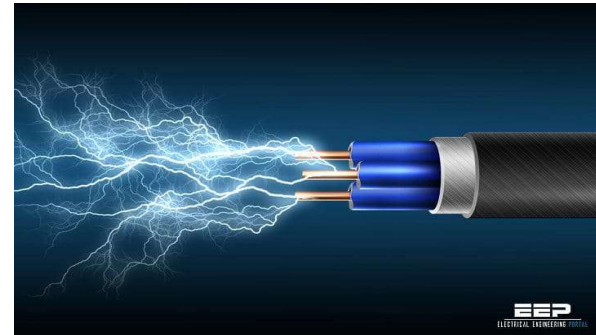
<https://www.cteresource.org/>

# Utility/Civil Construction Courses

- Utility/Heavy Construction I
- Utility/Heavy Construction II



# Electrical Courses



- **Electricity I**
- **Electricity II**
- Students develop fundamental electrical skills to help them prepare for a career in the installation, operation, maintenance, and repair of residential, commercial, and industrial systems. Students will engage in hands-on activities in a lab setting. They will be introduced to residential wiring of houses and apartments; commercial wiring of retailers, schools, businesses, and hospitals; and industrial wiring of factories.

## Diesel Equipment Technology I

## Diesel Equipment Technology II



Welding is required by a wide variety of industries anywhere fusible materials and high heat are needed to manufacture, repair, or alter tools and products. Students in Welding I are taught to use manual welding, cutting, and electrical arc welding processes to fabricate and join metal parts according to diagrams, blueprints, and specifications. Students will also learn all safety-related practices and techniques, including earning the Occupational Safety and Health Administration (OSHA) 10 card.

## **Welding I**

## **Welding II**



# Industrial Maintenance

## 1. Industrial Maintenance Technology I      Industrial Maintenance Technology II

Industrial maintenance technicians repair and maintain commercial or industrial equipment in buildings. Students will explore safety and precision measurement skills and will gain hands-on, practical experience in mechanical fundamentals, technical drawing, and welding.



# Virginia 2024 High Demand Occupations Dashboard

Occupation (SOC Code and Occupation Description)	High Demand	Funding		STEM Occupations	Registered Apprenticeship	▲ Workforce ▼ Current Year	▲ Avg. Annual Openings ▼ 5 Yr Projection	▲ Workforce Change		▲ Median Earnings ▼ Current Year
		FF	G3					#	%	
47-2111 Electricians	✓	✓	✓	STW	✓	25,003	2,992	1,410		\$58,973
47-2073 Operating Engineers and Other Construction Equ..	✓	✓			✓	11,679	1,343	518		\$47,312
51-4121 Welders, Cutters, Solderers, and Brazers	✓	✓	✓	STW	✓	10,501	1,306	384		\$50,732
51-4041 Machinists	✓	✓	✓	STW	✓	8,709	1,050	342		\$58,221
37-1012 First-Line Supervisors of Landscaping, Lawn Ser..	✓					5,366	620	193		\$47,246
47-4051 Highway Maintenance Workers	✓	✓				3,754	474	303		\$40,097
49-9051 Electrical Power-Line Installers and Repairers	✓	✓		STW	✓	3,552	362	218		\$64,779
17-3031 Surveying and Mapping Technicians	✓	✓	✓	S&E Related	✓	2,343	312	41		\$46,867
51-9161 Computer Numerically Controlled Tool Operators	✓	✓	✓	STW	✓	2,512	310	150		\$45,646
51-4081 Multiple Machine Tool Setters, Operators, and Te..	✓	✓		STW	✓	1,775	243	211		\$38,312
51-4031 Cutting, Punching, and Press Machine Setters, O..	✓	✓		STW		1,782	234	177		\$40,785
51-4021 Extruding and Drawing Machine Setters, Operato..	✓	✓		STW		1,688	225	119		\$38,709
49-9096 Riggers	✓			STW	✓	1,565	188	-29		\$57,928
47-2071 Paving, Surfacing, and Tamping Equipment Oper..	✓	✓				1,464	174	65		\$45,148
47-4071 Septic Tank Servicers and Sewer Pipe Cleaners	✓					1,037	132	41		\$42,468
51-4033 Grinding, Lapping, Polishing, and Buffing Machin..	✓		✓	STW		751	116	65		\$37,730
51-8021 Stationary Engineers and Boiler Operators	✓			STW		753	110	46		\$52,437
49-9012 Control and Valve Installers and Repairers, Exce..	✓			STW	✓	1,081	102	45		\$63,939

## WORK-BASED LEARNING

### EMPLOYMENT

#### 1.25 points

CTE completer\* who earned a state approved industry recognized credential in a **high-demand** field as defined by VOEE\*\* **and** completed a high-quality work-based learning experience as defined by the Board

#### 1 point

CTE completer who earned a state approved industry recognized credential in a **high-demand** field as defined by VOEE **or** CTE completer who earned a state approved industry recognized credential **and** completed a high-quality work-based learning experience as defined by the Board

#### 0.75 point

CTE completer who earned a state approved industry recognized credential as defined by the Board

#### 0.5 point

CTE completer who completed a high-quality work-based learning experience as defined by the Board

