



# Electrical and Instrumentation

## 36-credit Apprenticeship

[www.wctc.edu/electrical-inst](http://www.wctc.edu/electrical-inst)

*If you are a good problem solver, strong communicator and are dedicated to getting the job done, a career in the plumbing industry may be right for you. Plumbers are tasked with installing, repairing and maintaining water pipes, and they have a thorough understanding of building codes, knowledge of blueprint reading and insight into water conservation techniques.*

### About This Program

Learn to install, troubleshoot and maintain plant lighting equipment and receptacle circuits, motors, starters, motor control centers, programmable controllers, control panels, electrical control systems and transformers. Learn to service high voltage electrical systems in accordance with relevant codes. Learn to install, calibrate, test and repair electronic equipment.

### What Makes This Program Unique

- Earn while you learn. Upon completion, apprentices have little to no educational debt and have been working their employer for multiple years.
- This is a niche industry, with many employers seeking apprenticeships with this specific skillset.
- Become an ideal candidate to work in high-production industrial settings with constant quality control and calibration needs.

### Career Salaries

\$46,000 - \$67,000 annually

Salary range estimates based on wages for related occupations in Waukesha County as reported by Economic Modeling Specialists International (EMSI). Individual wages may vary based on experience, industry, location and specific job requirements.

### Potential Careers

- Industrial Electrician
- Journeyworker
- Master Electrician
- Electrical Engineer



PROGRAM CODE 50-414-2

Credits

### CORE COURSES:

413-510	IE Apprentice Code Review	1
413-523	Industrial Data Communication	2
413-524	IE DC Circuit Analysis	1.5
413-525	IE AC Circuit Analysis	1.5
413-526	NEC Overview	1
413-527	IE Transformers	1.5
413-528	IE Motors and Generators	1.5
413-529	NEC In Depth	1
413-533	IE Raceways Control Drawings	1.5
413-534	IE Electronics	1.5
413-535	NEC NFPA 70 and 79	1
413-536	IE Electromechanical Control 1	2
413-537	IE Electromechanical Control 2	2
413-538	IE Variable Speed Drives 1	2
413-539	IE Variable Speed Drives 2	2
413-540	IE PLC 1	1.5
413-541	IE PLC 2	1.5
414-722	E&I Troubleshooting Elec Sys	1
414-725	E&I Intro Indust Automated Sys	1
414-726	E&I Instrumentation Proc Ctrl	2
414-727	E&I Measurement and Process	2
414-728	E&I Appl Process Ctrl Capstone	2
419-501	Apprentice Hydraulics	1
419-502	Pneumatics for Apprentices	1

