



# ELECTRICITY

WHITewater CAREER CENTER

## PROGRAM OVERVIEW

Electricity focuses on the installation and repair of the electrical and wiring systems of physical structures, including instruction on the reading of technical drawings. Mathematical principles are used to solve electrical problems, including both AC and DC circuits. Students learn about electron theory, Ohm's Law, Watt's Law, Kirchoff's Law, series circuits, series-parallel circuits, electromagnetic induction, current, voltage, resistance, power, inductance, capacitance, and transformers. Students team with Construction Technology students to complete custom construction projects throughout the school and community.

## YOU WILL LEARN

- Residential wiring
- How to read technical drawings
- Theory & how to apply it to projects
- How to use mathematical principles to solve electrical problems
- How to work in a team setting with Construction Technology students

## GET YOURSELF READY

To be successful, do well in all academic classes, be on track for graduation, and have a good work ethic. The following courses will be helpful in this career area:

- Preparing for College and Careers
- Digital Applications & Responsibility
- Principles of Business Management



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## CERTIFICATIONS

OSHA 10-Hour Construction Industry  
HBI (Home Builders Institute & National Association of Home Builders) - House Wiring Basic

Industry certifications are  
earned in both years.

\* Certifications offered are subject to change.

## NEXT CAREER STEPS

Upon completion of this program, you may continue your education in 2 and 4-year degree programs at the postsecondary level or enter employment in one of the many electrical/construction fields. You may also enter apprenticeship programs for specific electrical or construction trades.

## POTENTIAL CAREERS

• Electrician	\$63,440
• Electrical and Electronics Installer & Repairer	\$70,380
• General Maintenance & Repair Worker	\$43,980
• Electrical Power Line Installer & Repairer	\$79,910
• Electrical & Electronics Engineering Technician	\$69,300

INDIANA MEAN WAGE

All career and salary information is cited from the U.S. Department of Labor Bureau of Labor Statistics, May 2021 State Occupational Employment & Wage Estimates.



## TRANSCRIPT INFORMATION

NEXT LEVEL  
PROGRAM OF STUDY

Cluster: Architecture and Construction

Pathway: Construction Trades - Electrical

### ELECTRICITY YEAR I

DOE Course Codes:

7130	Principles of Construction Trades	1 credit per semester
7124	Electrical Fundamentals	1 credit per semester
7119	Advanced Electrical	1 credit per semester

Co-requisites: Courses must be taken concurrently  
Recommended Grade Levels: 11, 12

### ELECTRICITY YEAR II

DOE Course Codes:

4832	Construction Trades: Electrical II	3 credits per semester
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Prerequisite: Year I  
Recommended Grade Level: 12

Electricity II qualifies as a Quantitative Reasoning Course (QR).

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