



ELECTRICITY

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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 help prepare you for the Electricity program:

- Preparing for College and Careers
- Introduction to Construction
- Other technology courses



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CERTIFICATIONS & DUAL CREDITS

OSHA 10-Hour Construction Industry
 NCCER (National Center for Construction Education & Research) Core
 NCCER (National Center for Construction Education & Research) Electrical 1

Ivy Tech Dual College Credits

BCTI 130	Introduction to Electrical	4 credits
BCTI 130	Introduction to Electrical	4 credits

Industry certifications and dual credits are earned in year one.

* Dual credits & 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	\$57,960
• Electrical and Electronics Installer & Repairer	\$72,220
• General Maintenance & Repair Worker	\$50,270
• Electrical Power Line Installer & Repairer	\$74,110
• Electrical & Electronics Engineering Technician	\$64,060

INDIANA MEAN WAGE

All career and salary information is cited from the U.S. Department of Labor Bureau of Labor Statistics, May 2020 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

Prerequisite: Year I

Recommended Grade Level: 12

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



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