



ELECTRICAL

Course Description:

Electrical program students will learn about residential, commercial, and industrial electrical installations. They will also learn about the production, transmission, and distribution of electrical power.

- Learn electrical theory, wiring, how to bend conduit, install electrical outlets, breaker boxes, and light fixtures. Each new skill learned has hands-on applications in the lab.
- Students may gain real-life experience through work-based learning employment opportunities with business partners in industrial, commercial, and residential applications.
- Study power production, transmission and electrical installation.
- Opportunities to learn installation techniques and wiring systems include, but are not limited to: electrical theory, print reading, conduit bending and installation, cabling, lighting and luminaire installation, and device installation.



Careerline *Tech Center*

Students who would benefit from this program are those who enjoy working with numbers (fractions, can read a tape measure), are mechanically inclined, and can problem solve.

Credits: Students will earn elective credit at their high school upon completion of this course. Please see a high school counselor (based on district decision) for eligibility towards 4th-year math-related credit, VPAA credit, and waived credits for third year science and second year world language.

College Credit: Students interested in pursuing a career in the electrical field can earn hours toward their electrical apprenticeship.

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LENGTH OF PROGRAM

1 year

Instructor:

Tom Medendorp
tmedendo@oaisd.org

ParaPro:

Jason Rauch
jrauch@oaisd.org

Related Careers with 2022 Median Annual Pay from O*Net

- Electrician \$60,240+
- Electrical and Electronics Repairers, Powerhouse, Substation, and Relay \$97,860
- Electrical and Electronic Engineering Tech. and Technicians \$61,990
- Electrical Power-Line Installers and Repairers \$82,340
- HVAC Technician \$51,390
- And many more

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TO ENROLL

bit.ly/CTCenroll



QUESTIONS?

Contact Jannette Bole
jbole@oaisd.org



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Careerline Tech Center

13663 Port Sheldon Street | Holland | 616-738-8950

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Course Outline:

1st Semester: Building Your Future In Construction, Employability Skills, Communication Skills, Construction Math, Safety, Hand tools, Power Tools, Print Reading and Project, Documentation, Electrical Construction, Conductors & Cables, Raceways & Wireways, Device & Junction Boxes, Device Wiring, Electrical Theory, Electrical Code, Electrical Circuits, Conduit Bending, Residential/Commercial, Industrial/Motor Control.

2nd Semester: Expand on the topics above and there may be work-based learning opportunities.

Resources Used:

On-line learning, Textbook, Assessments, Exercises, Hand and Power Tools, Pipe Threading and Bending Equipment, Electrical Testing Equipment, Lock Out/Tag Out, and Ladders.

Postsecondary Partners:

Grand Rapids Community College, M-TEC Apprenticeship Program, West Michigan Joint Apprenticeship Training Council and Western Michigan electrical contractors.

Work-Based Learning: All students at CTC have the opportunity to participate in experiences (such as guest speakers, tours, and work experiences) that connect them with local employers in their program area.

We have a very strong Advisory Board, as well as business connections with many of our former students who are working in industry and/or business owners. This network makes for excellent support in work-based learning, job opportunities, speaking and training opportunities for our students.

Safety Trainings Provided: OSHA 10-hour—Electrical, OSHA 10-hour General Industry, First Aid/CPR/AED, NCCER Core and Electrical Level One.

Student Leadership Opportunities: Students can participate in activities with classmates and outside community partners to strengthen their leadership skills

Offsite Delivery: With Western Michigan contractors.

Capstone: Upon course completion and with teacher recommendation, qualifying students may extend their learning through Capstone. This highly independent course has rigorous attendance and employability requirements. Enrollment starts in May. See your work-based learning coordinator for more information.