



Electricity/Electronics

Grades 11 & 12

This is a two year program which allows students the opportunity to attain entry level job skills and/or prepare for additional in-depth training in the Electricity/Electronics field. Students will study Electronics Technology with many analog and digital projects to build. Residential house wiring and industrial motor controls along with training on PLC's (Programmable Logic Controller) are part of the second year. Classes may wire a modular home or work on projects outside of the Career and Technical Ed Center. Students will be given job-seeking skills and be assisted in finding jobs near the end of their second year.

Objectives are:

1. Learn the theory of Electricity: Ohms, Volts, Amps and Watts.
2. Learn the use of hand tools and how to solder projects.
3. Learn how to completely wire a house with NEC Codes.
4. Learn ladder logic and industrial motor-control.
5. Learn to bend metal and PVC conduit.
6. Learn how to wire and program PLC's
7. Learn the basics of solar power in the use of home construction.

Program Highlights

Safety in the Workplace	Hand and Power Tools	Electrical Theory
Reading Electrical Schematics	Alarm Systems	Digital Multi Meters
Residential Wiring	Commercial & Industrial Wiring	NEC Code Book
Installing Breaker Panels	Using an Oscilloscope	Programming PLC's
Motor Controls	Installing Solar Panels	Bending Conduit

Applied Academics

Students enrolled in the Electricity/Electronics program can earn credits that will satisfy core academic requirements in English Language Arts, Math and Science. Through the integration of these core academics, achieving a Regents Diploma remains in reach.

College Agreements

In addition to gaining the skills needed to enter the workforce, this program provides an excellent foundation for students looking to enter a college program. Articulation agreements for college credit are in place with: Erie Community College (4.5 credits).

How to Enroll

Orleans/Niagara BOCES partners with local school districts to provide exciting hands-on career and technical training during normal school day. To learn more, speak with your high school counselor or you can contact Orleans/Niagara BOCES Orleans Career and Technical Education Center Principal Mr. Michael Mann at mmann@onboces.org.

Teacher Information

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