

# ELECTRICITY

**Program Number:** 31-413-1

Technical Diploma (1 year)

**Campus:** West Bend

This program is eligible for financial aid (<http://www.morainepark.edu/financial-aid/>)

Prepare for the State Electrical Apprenticeship program and enter a career in electricity with Moraine Park Technical College's two-semester diploma in electricity.

## About the Program

The Electricity program provides students with a strong foundation in general electrical concepts. Students gain skills in residential, commercial and industrial electricity. From analyzing electrical circuits to investigating theories and principles of renewable energy, this program provides students with a wide skillset and prepares graduates to enter the workforce and become an electrician apprentice.

## What You'll Learn

Students in the electricity program gain hands-on training in reading blueprints, using trade-specific math, and understanding electrical code and theory. Students also review renewable energy theories and principals.

Graduates are skilled in applying electrical codes, evaluating electrical circuits, and installing electrical equipment in residential, industrial and commercial settings. They are also prepared to explain and follow construction safety practices.

## Transfer Opportunities

Earn credits at MPTC and transfer to a four-year college to earn your bachelor's degree.

Visit the Transfer Opportunities (<https://www.morainepark.edu/academics/transfer-information/transfer-to-a-four-year-college/>) page for more information on credit transfer agreements between Moraine Park and four-year colleges, both public and private.

## Additional Information

Note: Students must purchase a tool kit for this program.

## Admission Process

Standard Admissions (<http://www.morainepark.edu/admissions/new-student/how-to-apply-for-admissions/>) steps details

## Credit for Prior Learning

Earn college credit outside the classroom through Moraine Park's Credit for Prior Learning (CPL) opportunities. Credit opportunities are available for:

- Previous college coursework from prior institutions
- Military training and experience
- Passing of MPTC or national exams
- Skills or knowledge developed on the job or through other life experiences

Visit MPTC's Credit for Prior Learning (<https://www.morainepark.edu/academics/transfer-information/credit-for-prior-learning/>) page for more information.

## Approximate Costs

- \$141.00 per credit (resident)
- \$211.50 per credit (out-of-state resident)
- Online students are not charged out-of-state fees.
- Please refer to the MPTC Student Handbook (<http://www.morainepark.edu/studenthandbook/>) for additional enrollment fee information.

## Financial Aid

Financial Aid is provided to aid eligible associate degree and technical diploma programs with 28 credits or more. Processing can take 6-8 weeks after a student's completed Free Application for Federal Student Aid (FAFSA (<https://studentaid.gov/h/apply-for-aid/fafsa/>)) is received. Visit the Financial Aid (<https://www.morainepark.edu/pay-for-college/financial-aid/>) page to learn more.

## Course Requirements

Course	Title	Credits
<b>Semester 1</b>		
103-159	Computer Literacy - Microsoft Office	1
413-350	Beginning Electrical Concepts	2
413-355	Residential and Commercial Wiring Concepts	3
413-360	Introduction to National Electrical Code	2
413-361	Intermediate National Electrical Code	2
413-363	OSHA Job Site Safety	1
413-370	Construction Trades Blueprint Reading	2
804-360	Occupational Mathematics 1	2
890-101	College 101	2
<b>Credits</b>		<b>17</b>
<b>Semester 2</b>		
413-351	Advanced Electrical Concepts	2
413-365	Basic Motor Controls	3
413-380	Industrial Wiring Concepts	3
413-385	Electrical Fabrication	2
413-386	Trends in Electricity	1
801-310 or 801-196	Occupational Communication or Oral and Interpersonal Communication	1
804-118	Intermediate Algebra With Applications	4
809-300	Occupational Success Strategies	1
<b>Credits</b>		<b>17</b>
<b>Total Credits</b>		<b>34</b>

## Program Outcomes

- Analyze electrical circuits mathematically.
- Apply electrical codes.
- Demonstrate use of test instruments.
- Evaluate electrical circuits using meters.
- Explain and follow construction safety practices.
- Install electrical equipment in a commercial setting.
- Install electrical equipment in an industrial setting.
- Install electrical equipment in a residential setting.
- Investigate the various theories and principles of renewable energy and conservation.

- Program a basic programmable logic control (PLC) and Human Machine Interface (HMI) circuit.
- Use blueprints to evaluate construction work.
- Wire a basic circuit to a programmable logic control (PLC).

#### Pathways

- Electricity Technical Diploma (p. 1)
  - Industrial Wiring Certificate (<https://catalog.morainepark.edu/programs/industrial-wiring-certificate/>)

Earn a certificate and technical diploma along this pathway. Start with some courses for entry-level employment, and continue with additional courses for higher wages and job advancement.

## Career Opportunities

- Apprentice Commercial Electrician
- Apprentice Industrial Electrician
- Apprentice Residential Electrician

## Statewide Median Salary for Recent Graduates

\$32,154