

# About Workforce Development Solutions

M State's Workforce Development Solutions provides more than 100,000 hours of training annually to over 6,000 students and employees. We work with more than 500 business and industry partners throughout the region. Our approach is to listen to the needs of our partners, then design and deliver customized curriculum to meet the specific needs of the adult working learner. We are one of the largest providers of non-credit training in Minnesota, offering training in the areas of Business Technology, Electrical, Health, Fire, Leadership Development, Mechanical/Technical, Safety and Compliance and Transportation.

Experience and research show that adult learners learn better when hands-on skills are used to reinforce concepts, so most electrical training includes a hands-on component. Training partner policies and procedures such as safety policies can be included and reinforced as part of the curriculum.

M State has met our needs in regards to continuing education and code training. They handle all the reporting and approvals in the various states we require education credit in, leaving us to focus on other important things."

Megan Henkemeyer J-Berd Companies

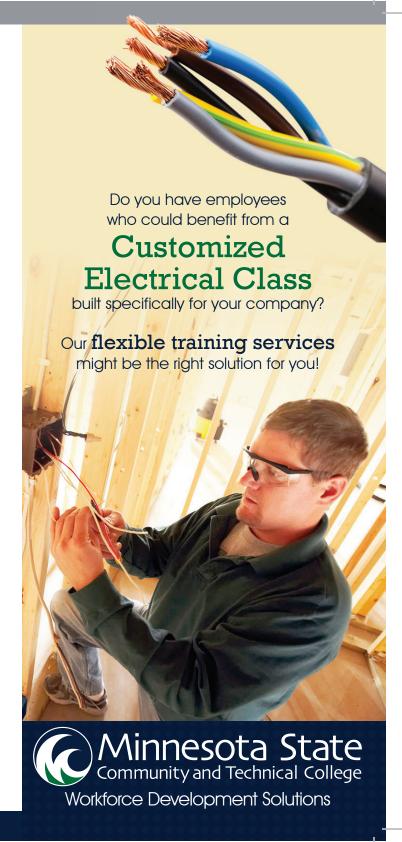


MINNESOTA STATE

Minnesota State Community and Technical College,
A member of the Minnesota State system, is an affirmative
action, equal opportunity educator and employer.

Minnesota State Community and Technical College Workforce Development Solutions 900 Hwy 34 East

Detroit Lakes, MN 56501



#### **Non-Credit Courses**

#### Electrical Safety for Affected Workers

This course covers OSHA Standard NFPA 70E and addresses the workplace electrical safety requirements necessary to protect employees/ contractors from death or serious injury when working on or in proximity to live (energized) circuits. The course will describe these relationships, explain the hazards and identify safety measures.

## **Electrical Training**

This course prepares maintenance personnel with the fundamentals of basic electricity and workplace electrical safety, including use of various meters and troubleshooting processes. Areas covered include schematics, branch circuit problems, opens, shorts, overcurrent protection and industrial control panel standards. Troubleshooting includes control and power circuits, motors and programmable logic controller (PLC) inputs and outputs.

### Journeyman and Master Electrician Prep

This course provides experienced electricians and advanced students with an overview of the National Electrical Code, laws and rules regulating the licensing of electricians, and electrical installation inspections.

This course does NOT qualify for continuing education credits. This course CAN be used in preparing for the Journeyman or Masters Electrician exam.

# We can also customize courses in:

- Arc Flash (70E)
- Basic Electrical
- Electrical Application and Troubleshooting Concepts
- Electrical Safety: Affected, Qualified and Refresher
- Electrical Theory and Safety
- Lock-Out/Tag-Out

#### **Code Credit Courses**

# Article 430 National Electrical Code (Motor Controls)

This course covers Article 430. Topics will include: motor branch circuit and feeder conductor size, short-circuit and ground-fault, motor overload protection, adjustable speed drives, motor controllers and motor control circuits, grounding motor and controller disconnect requirements.

This course satisfies 2 CE Code hours

Our employees were very involved with the training and loved the hands-on experience. The instructor was very informative, flexible to our specific training needs and easy to work with."

Paul Matthys, Mike Mead and Betsy Erickson Cass County Electric Cooperative

#### National Electrical Code Calculations

This course reviews the many calculations used in the electrical industry and the 2017 National Electrical Code. Examples of calculations include voltage drop, box, fill, fault current, neutral current, conduit fill, overcurrent protection, PVC expansion and conductor sizing.

This course satisfies 8 CE Code hours

### National Electrical Code Changes I & II

This course covers the major changes in Articles 90 through Chapter 9, including four new articles in the 2017 National Electrical Code.

This course satisfies 8 CE Code hours

# PLT and Communication Systems Update

This course covers the major changes in the 2017 National Electrical Code that relate to power-limited technicians or those in related low-voltage industries.

This course satisfies 2 CE Code hours

## Code Credit Courses, continued

Power Limited for Control, Signal and Communication Systems

This eight-hour course covers power limited circuits from the 2017 National Electrical Code, Mike Holt's Low-Voltage Limited Energy & Communications Systems, and BICSI and ANSI standards on communication and data wiring.

This eight-hour course satisfies 3 CE Code hours

#### Power Limited Refresher

This course covers state licensing and inspection requirements under the Minnesota Electrical Act, National Electrical Code requirements for communication circuits, power limited Class 2 and 3 raceway and cable requirements, and low-voltage lighting systems.

This course satisfies 8 CE Code hours

# For information about Workforce Development Solutions at M State, contact:

#### G.L. Tucker

Executive Director 218.846.3765 gl.tucker@minnesota.edu

#### **Amy Hochgraber**

Director of Business & Industry 218.846.3766 amy.hochgraber@minnesota.edu

minnesota.edu/wds

