

## ELECTRICAL SAFETY

## INSTRUCTOR'S GUIDE

### MODULE OVERVIEW

This module provides an overview of electrical hazards in machine shops. It presents information on how to identify hazardous situations that can lead to unexpected contact with electricity, and what are the health effects of exposure to electricity. Safe practices and procedures for working with electrical tools and checking machine wiring are highlighted. Students will learn how to inspect a shop for electrical hazards and what to do in case of emergency.

### OBJECTIVES

When students have completed this module, they will be able to:

- Determine which items may expose them to electrical hazards.
- Identify hazardous situations that generate exposure to electrical hazards.
- Identify specific health effects that occur after exposure to electrical hazards.
- Explain how to identify and test a GFCI and what is the role of electrical breakers.
- List the steps that must be taken in case of emergency due to exposure to electricity.

### CLASSROOM (15 min)

PowerPoint presentation: **Electrical Safety.pptx**

Handout: **Electrical Safety – Handout.pdf**

Instructor Tool Kit: none

### LAB (15 min)

**Electrical Safety - Lab Activities.pdf** – Evaluation of electrical hazards using a checklist. Demonstrate testing of a GFCI outlet. Show students where AEDs are placed in/around the shop. Watch a video on how to use an AED.

### HOMEWORK on D2L

- **Electrical Safety - Homework .pdf** – Students read a US National Library of Medicine article on what to do in case of electrical injury. Students use a checklist to identify electrical hazards in their garage or workshop.
- **Quiz**

### ADDITIONAL RESOURCES

- **“I want to know more” – folder** – case studies on deaths due to electrocution

