

MODULE OVERVIEW

This module provides a review of electrical and fire hazards in machine shops. Students learn about the health effects of exposure to electricity, and what to do in case of emergency. Available types of fire extinguishers are reviewed, along with the correct way of using and storing them. Students learn how to inspect a shop for electrical and fire hazards and how to correct some of these hazards.

OBJECTIVES

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

- Determine which items may expose them to electrical and fire hazards.
- Identify hazardous situations that generate exposure to electrical and fire hazards.
- Use work practices to reduce fire and electrical hazards in machine shops.
- List the steps that must be taken in case of emergency due to exposure to electricity.
- Explain how to use a fire extinguisher, and how to store and maintain it properly.

CLASSROOM (15 min)

PowerPoint presentation: **Electrical and Fire Safety - Refresher.pptx**

Handout: **Electrical and Fire Safety - Refresher – Handout.pdf**

LAB

None

HOMEWORK

Electrical and Fire Safety – Refresher - Homework .pdf – Students evaluate the electrical cords and plugs on each tool they own at home. Students bring to class reports of fire in machine shops across the US.

Instructors: *Discuss in class similarities and differences between 2 or 3 fire reports.*

- **Quiz – Fire Safety**
- **Quiz – Electrical Safety**

ADDITIONAL RESOURCES

- **“I want to know more” - folder** – case studies on worker deaths due to electrocution; emergency exits fact sheet; welding area checklist; gas cylinders checklist; CNC machine grounding; NFPA 2018 report

