

ATIN-2100: SHOP SAFETY

Cuyahoga Community College

Viewing: ATIN-2100 : Shop Safety

Board of Trustees:

October 2024

Academic Term:

Spring 2025

Subject Code

ATIN - Applied Industrial Technology - Insulators

Course Number:

2100

Title:

Shop Safety

Catalog Description:

Recognize the hazards associated with the common tools and machinery used in the shop. Develop the skills to safely and effectively operate equipment.

Credit Hour(s):

1

Lecture Hour(s):

1

Requisites

Prerequisite and Corequisite

Departmental approval: admission to Heat and Frost Insulator's apprenticeship program.

Outcomes

Course Outcome(s):

Evaluate best practices for use and care of hand tools.

Objective(s):

1. Demonstrate use and care of geometric layout hand tools.
2. Demonstrate use and care of measurement and alignment tools.
3. Demonstrate use and care of insulation cutting hand tools.
4. Demonstrate use and care of metal cutting hand tools.

Course Outcome(s):

Evaluate best practices for safe use of equipment.

Objective(s):

1. List common hazards and injuries for equipment.
2. Describe appropriate Personal Protective Equipment (PPE).
3. Operate equipment safely and effectively.

Methods of Evaluation:

1. Quizzes from International
2. Tests from International

3. Final exam from International
4. Graded Projects

Course Content Outline:

1. Geometric tools
 - a. Dividers
 - b. Framing Squares
 - c. T-Bevels
 - d. Protractors
2. Measurement and Alignment Tools
 - a. Folding/ Steel Tapes
 - b. Calipers
 - c. Chalk Lines
 - d. Plumb Bobs
3. Insulation Cutting Hand Tools
 - a. Hand Saws
 - b. Knives
 - c. Utility Knives
 - d. Rasps
4. Metal cutting hand tools
 - a. Tin snips/ aviator snips
 - b. Center punch
 - c. Metal Notchers
 - d. Awl
 - e. Banders
5. Equipment
 - a. Foot Shear
 - b. Metal Break
 - c. Beaders
 - d. Crimpers
 - e. Pittsburgh machine
 - f. Metal rolling machine

Resources

Fundamental Insulation I Piping Manual. Version 2. Use and Care of Tools, International Association of Heat and Frost Insulators and Asbestos Workers, 2014.

Tennsmith Brake Manual. www.tennsmith.com, 2024.

Pexto Foot Shear Manual. Trick-Tools.com, 2024.

Pexto slip roll manual. Pexto, 1983.

Beader/ Crimper Manual. Gardner-Bully, 2007.

Pittsburgh Metal Forming Machine Manual. Flagler, 2006.

Resources Other

www.jatctraining.com 2024.

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