

# ATIW-2340: SPECIALTY INSTALLATION EQUIPMENT

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## Cuyahoga Community College

### Viewing: ATIW-2340 : Specialty Installation Equipment

**Board of Trustees:**

March 2020

**Academic Term:**

Fall 2020

**Subject Code**

ATIW - Appld Indus Tech - Ironworking

**Course Number:**

2340

**Title:**

Specialty Installation Equipment

**Catalog Description:**

Study and use of equipment in installation of specialty building products. Safety training including employee, equipment, and jobsite safety and procedures for material handling and inspections, according to OSHA regulations.

**Credit Hour(s):**

2

**Lecture Hour(s):**

2

## Requisites

**Prerequisite and Corequisite**

ATIW-2330 Pre-Construction Planning of Specialty Applications or concurrent enrollment, or departmental approval.

## Outcomes

**Course Outcome(s):**

A. Use proper equipment for all functions relative to specialty applications.

**Objective(s):**

1. Plan for equipment needed.
2. Utilize equipment needed.
3. Evaluate what equipment was not needed.

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**Course Outcome(s):**

B. Describe training requirements for safe working practice.

**Objective(s):**

1. Research training requirements for equipment used.
2. Plan specialty training requirements.
3. Create safety plan.
4. Apply safety plan.

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**Course Outcome(s):**

C. Demonstrate proper and safe material handling

**Objective(s):**

1. Analyze safe working conditions.
2. Apply safe working conditions.

3. Critique if training requirements are adequate.
4. Utilize more training if needed.

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**Course Outcome(s):**

D. Explain inspection components

**Objective(s):**

1. Research inspection requirements.
2. Apply inspection requirements.
3. Analyze inspection requirements.

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**Course Outcome(s):**

E. Conduct inspections

**Objective(s):**

1. Interpret what inspections are needed.
2. Create inspection plan.
3. Apply inspection plans.
4. Adapt inspection plans.

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**Methods of Evaluation:**

1. Quizzes
2. Exams
3. Classroom participation
4. Demonstration of project assignments

**Course Content Outline:**

1. Equipment considerations
  - a. Operator training
  - b. Equipment selection
  - c. Safety devices
  - d. Cranes
    - i. mobile
    - ii. tower
    - iii. monorails
    - iv. derricks
  - e. Specialized equipment
  - f. Operating equipment
    - i. welding machines
    - ii. torches
    - iii. concrete saws
    - iv. tool list
  - g. Personnel access equipment
    - i. portable ladders
    - ii. scaffolds
    - iii. mobile elevating work platforms
2. Safety training
  - a. Employees
  - b. Equipment safety programs
  - c. Jobsite safety
  - d. Material handling
3. Inspection components and procedures
  - a. Types of tolerances
    - i. product
    - ii. erection
    - iii. clearances

- iv. connection and hardware
- v. interface
- b. Quality control
  - i. inspections
  - ii. record-keeping

## Resources

International Association of Bridge, Structural and Ornamental Iron Workers. *Architectural and Ornamental Training Manual for Ironworkers: Hand Tools, Power Tools, Anchors and Fasteners, Volume 1*. Washington, D.C.: AFL-CIO, 1996.

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International Association of Bridge, Structural and Ornamental Iron Workers. *Architectural and Ornamental Training Manual for Ironworkers: Operating Layout Instruments, Constructing Curtain Walls, Constructing Window Walls, Volume 2*. Washington, D.C.: AFL-CIO, 1996.

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International Association of Bridge, Structural and Ornamental Iron Workers. *Precast Concrete Manual for Ironworkers: Manual XI*. Washington, D.C.: Precast/Prestressed Concrete Institute, 1999.

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Parmley, Robert O., editor in chief. *Standard Handbook of Fastening and Joining*. 3rd ed. New York: McGraw-Hill, c, 1997.

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## Resources Other

International Association of Bridge, Structural, Ornamental and Reinforcing IronWorkers, Instructor Materials. <http://www.ironworkers.org/training/for-instructors>

Top of page

Key: 385