

# ATMW-2700: MONORAIL

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## Cuyahoga Community College

**Viewing: ATMW-2700 : Monorail**

**Board of Trustees:**

2007-05-24

**Academic Term:**

Spring 2019

**Subject Code**

ATMW - Appld Ind Tech - Millwrighting

**Course Number:**

2700

**Title:**

Monorail

**Catalog Description:**

Study of monorail systems used to transfer materials in assembly line operations and related manufacturing facilities. Topics include blueprint reading, layout procedures, component installation, and screen guard installation.

**Credit Hour(s):**

2

**Lecture Hour(s):**

2

## Requisites

**Prerequisite and Corequisite**

Acceptance to any Applied Industrial Technology program, and ATCT-1301 Introduction to Carpentry; or departmental approval.

## Outcomes

**Course Outcome(s):**

Work safely, effectively, and efficiently with monorail systems on a job site.

**Objective(s):**

1. Evaluate layout procedures by establishing elevations and locating centerlines.
2. Differentiate installation points using construction blueprints.
3. Assemble and install monorail components.
4. Organize screen guard components and choose installation techniques.
5. Install screen guards.

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**Methods of Evaluation:**

1. Quizzes
2. Exams
3. Classroom participation
4. Demonstration of assigned projects

**Course Content Outline:**

A. Concepts

1. Layout procedures
2. Layout procedure evaluation
3. Computing layout procedures
4. Elevations

- 5.Elevation establishment
- 6.Centerlines
- 7.Locating centerlines
- 8.Installation points
- 9.Monorail components
- 10.Monorail component assembly
- 11.Monorail component installation
- 12.Benchmarks
- 13.Benchmark identification
- 14.Offsets and angles
- 15.Blueprints
- 16.Blueprint reading:abbreviations
- 17.Blueprint reading:symbols
- 18.Blueprint reading:conventions
- 19.Blueprint reading:structural drawings
- 20.Blueprint reading:floor plans
- 21.Blueprint reading:sections and details
- 22.Beams
- 23.Columns
- 24.Braces
- 25.Stabilizers
- 26.Connection points
- 27.Monorail installation system type:power and free
- 28.Monorail installation system type:chain and trolley
- 29.Screen guard:components
- 30.Screen guards:structural supports
- 31.Screen guards:component installation

**B.Skills**

- 1.Evaluating layout procedures by establishing elevations and locating centerlines
- 2.Differentiating installation points using construction blueprints
- 3.Assembling monorail components
- 4.Installing monorail components
- 5.Organizing screen guard components
- 6.Choosing installation techniques for screen guard components
- 7.Installing screen guards
- 8.Identifying benchmarks
- 9.Establishing elevations
- 10.Computing layout procedures
- 11.Locating centerlines
- 12.Determining offsets and angles
- 13.Reading blueprints
- 14.Installing beams
- 15.Installing columns
- 16.Installing braces
- 17.Installing stabilizers

**C.Issues**

- 1.Safety
- 2.Professional demeanor to promote credibility of the trade
- 3.Communication skills to promote effective interpersonal skills

**Resources**

Basaraba, Bruce. *Industrial Trades Training Manual*. Alberta: IPT Publishing, 1986.

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United Brotherhood of Carpenters. *Instructional Materials for the Millwright-Monorails*. Washington: United Brotherhood of Carpenters, 1976.

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United Brotherhood of Carpenters. *Introduction to Millwrighting*. Washington: United Brotherhood of Carpenters, 2001.

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