

# ATLB-2600: SCAFFOLDS/HIGH ELEVATION TECHNIQUES

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## Cuyahoga Community College

**Viewing: ATLB-2600 : Scaffolds/High Elevation Techniques**

**Board of Trustees:**

2003-05-22

**Academic Term:**

Spring 2019

**Subject Code**

ATLB - AIT-Construct/Hazard Material

**Course Number:**

2600

**Title:**

Scaffolds/High Elevation Techniques

**Catalog Description:**

In-depth study of scaffolding and high elevation procedures. Set up and erection procedures, scaffold types, scaffold parts, and safety requirements.

**Credit Hour(s):**

3

**Lecture Hour(s):**

3

## Requisites

**Prerequisite and Corequisite**

Completion of 6 credit hours in ATLB, ATCT, ATBL, or ATCM coursework.

## Outcomes

**Course Outcome(s):**

N/A

**Objective(s):**

1. Demonstrate set up knowledge and perform a proper procedure to set up a scaffold.
2. Identify and demonstrate proper uses of scaffold types and parts.
3. Apply required safety procedures to the erection of scaffolding.
4. Demonstrate knowledge of lifelines by discussing types and appropriate applications.
5. Identify OSHA requirements for all stages of set up and erection.

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**Methods of Evaluation:**

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

**Course Content Outline:**

1. Scaffolds and high elevation procedures
  - a. Footings
  - b. Alteration
  - c. Required conditions for erection
2. Erection procedures

- a. Set up
- b. Plumb
- c. Level
- d. Rigid mudsills and crossbrace
- e. Load capacities
- f. Overhead protection
3. Scaffold types
  - a. Boatswain's chair
  - b. Bricklayers's square
  - c. Carpenter's bracket
  - d. Rotating platforms
  - e. Swing
  - f. Ladder jack
  - g. Window jack
  - h. Roofing brackets
  - i. Float
  - j. Needle beam
  - k. Outrigger
  - l. Wood pole
  - m. Pump jack
  - n. Horse
  - o. Interior hung
  - p. Tube and coupler
4. Scaffold parts
  - a. Planking
  - b. Guard rails
  - c. Diagonals
  - d. Mudsills
  - e. Screw jacks
  - f. Parapet hook
  - g. Fall-arrest equipment
  - h. Harnesses
  - i. Lanyards
  - j. Rope grabs
  - k. Shock absorbers
  - l. Lifelines
5. Horizontal lifelines
6. Vertical lifelines
7. Safety line
8. Adjacent frames
9. Guardrail
  - a. Platform less than 45" wide
  - b. Platform 45" or wider
  - c. Toprail
  - d. Midrail
  - e. Toeboard
  - f. Decking
10. Inspection
11. Ladder jacks
12. Safety
  - a. OSHA 1926.451 Subpart L
    - i. Tubular welded scaffold
    - ii. Lock pin requirements
    - iii. Drawings and specs
    - iv. Ties into structure
    - v. Scaffold access
    - vi. Quadrail requirements
  - b. Mobile scaffolds

- i. Casters
- ii. Ladder access
- iii. Screw jacks
- iv. Cleating
- c. Rotating platforms
- d. Test controls schedule
- e. Body belt and lanyard
- f. Lower controls

## Resources

U.S. Dept. of Labor, Occupational Safety and Health Administration. *A Guide to Scaffold Use in the Construction Industry*. Washington: U.S. Dept. of Labor, Occupational Safety and Health Administration, 1997.

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Duntemann, John F. *Construction Handbook for Bridge Temporary Works*. Mclean, VA: National Technical Information Service, 1993.

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U.S. Dept. of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health. "Request for Assistance in Preventing Worker Injuries and Deaths Caused by Falls From Suspension Scaffolds"

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