

ATPT-1650: BLUEPRINTS I: CONSTRUCTION FUNDAMENTALS

Cuyahoga Community College

Viewing: ATPT-1650 : Blueprints I: Construction Fundamentals

Board of Trustees:

September 2025

Academic Term:

Fall 2025

Subject Code

ATPT - Appld Indus Tech - Painting

Course Number:

1650

Title:

Blueprints I: Construction Fundamentals

Catalog Description:

Introduction to basic principles of blueprint reading including terminology, types of drawings, specifications and schedules, lines, symbols, scales, dimensions, and uses for painting crafts.

Credit Hour(s):

2

Lecture Hour(s):

2

Requisites

Prerequisite and Corequisite

Admissions to Painting Technology apprenticeship program, or departmental approval.

Outcomes

Course Outcome(s):

N/A

Objective(s):

1. Identify types of drawings, terminology, and uses of blueprints for painting crafts.
2. Differentiate between different types of blueprints.
3. Interpret lines, symbols, scales, and dimensions used on blueprints.
4. Differentiate between various types of architectural and engineering drawings and read basic information from them.

Methods of Evaluation:

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

Course Content Outline:

1. Fundamentals of blueprints and specifications
 - a. Definitions
 - i. terminology
 - ii. comparing prints and drawings
 - iii. uses of blueprints for craftsmen
 - iv. blueprint uses for painters and drywall finishers

- b. Types of drawings in a set of blueprints
 - i. major categories
 - ii. information found on:
 - 1. architectural drawings
 - 2. structural drawings
 - 3. mechanical drawings
 - 4. plumbing drawings
 - 5. electrical drawings
 - 6. drawings most useful to painters, decorators, and drywall finishers
- c. Specifications and schedules
 - i. purposes
 - ii. contents
 - iii. specifications and schedules for painting crafts

2. Lines, symbols, scales and dimensions

- a. Types of lines used on blueprints
 - i. types of lines
 - ii. purposes
- b. Types of symbols
 - i. meanings
 - ii. uses
- c. Use of scales on drawings
 - i. meaning
 - ii. uses
 - iii. scaling a drawing
 - iv. terms
- d. Reading dimensions from blueprints
 - i. types of dimensions
 - ii. dimensioning practices of architects
 - iii. terms

3. Basic architectural and engineering drawings

- a. Architectural drawings
 - i. site plan drawings
 - ii. floor plan drawings
 - iii. elevation drawings
 - iv. section and detail drawing
- b. Engineering drawings
 - i. structural drawings
 - ii. mechanical drawings
 - iii. plumbing drawings
 - iv. electrical drawings

The Course Schedule is subject to change due to pedagogical needs, instructor discretion, parts of term, and unexpected events.

Resources for the Instructor

Hutch, Mark. *Understanding Construction Drawing*. 3rd Edition. Albany: Delmar, 1999.

National Painting, Decorating and Drywall Apprenticeship and Manpower Training Fund. *Blueprint Reading for Painters and Drywall Finishers Instructor's Guide*. (Latest edition). Washington, DC: National Painting, Decorating and Drywall Apprenticeship Manpower Training Fund, 1976.

Putnam, Robert E. *Building Trades Blueprint Reading*. (Latest edition). Reston: Reston Publishing Co, 1986.

Sundberg, Elmer W. *Building Trades Blueprint Reading Part 1*. 5th Edition. Chicago: American Technical Society (Latest edition), 1972.

Sundberg, Elmer W. *Building Trades Blueprint Reading Part 2*. 2nd Edition. Chicago: American Technical Society, 1974.

Sundberg, Elmer W. *Building Trades Blueprint Reading Part 3*. (Latest edition). Chicago: American Technical Society, 1973.

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