

# AIT-1030: BASIC CONSTRUCTION LANGUAGE

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## Cuyahoga Community College

**Viewing: AIT-1030 : Basic Construction Language**

**Board of Trustees:**

2012-11-29

**Academic Term:**

Fall 2024

**Subject Code**

AIT - Applied Industrial Technology

**Course Number:**

1030

**Title:**

Basic Construction Language

**Catalog Description:**

Study of construction drawings to determine specifications, lines and line weights, measurements related to laying out, dimensioning, estimating and planning.

**Credit Hour(s):**

2

**Lecture Hour(s):**

2

## Requisites

**Prerequisite and Corequisite**

Eligibility for ENG-0985 Introduction to College Literacies, MATH-0915 Basic Arithmetic and Pre-Algebra or qualified Math placement, and concurrent enrollment in the following courses: AIT-1010 Construction Measurements and Calculations, AIT-1020 Comprehension and Communication for Construction, AIT-1040 Spatial and Mechanical Reasoning, AIT-1050 Construction Industry Orientation, AIT-1060 Construction tools, and AIT-1120 Building Construction Trades Lab.

## Outcomes

**Course Outcome(s):**

Differentiate between the various lines that are used on construction drawings and discuss various conventions that are used.

**Objective(s):**

1. Identify property lines on a site plan and discuss their respective use.
2. Explain how the various line weights represent different things and objects.
3. Explain the use of abbreviations used on drawings.
4. Discuss how various conventions and symbols are used to represent material and equipment.
5. Identify the various sheets used in a set of construction drawings.

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**Course Outcome(s):**

Explain the differences and similarities between residential and commercial drawings.

**Objective(s):**

1. Discuss the different scales that are used and differentiate between residential and commercial use.
  2. List the sheets contained in a set of construction working drawings.
  3. List the drawings that are common to both types of construction.
  4. Identify drawing sheets that are contained in a commercial set of drawings that are different from those found in a residential set.
  5. List various schedules that are used and discuss how product information is specified.
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**Course Outcome(s):**

Interpret construction drawings to identify measurements and material requirements.

**Objective(s):**

1. Determine property dimensions.
2. Locate buildings on site plans.
3. Identify utilities and easements.
4. Discuss the relative elevations of contour lines with respect to storm water flow.

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**Course Outcome(s):**

Interpret drawings to locate various building features.

**Objective(s):**

1. Locate offsets and projections.
2. Identify centerlines of columns and partitions.
3. Determine room sizes from floor plans.
4. Discuss details and sections shown on architectural sheets.
5. Explain how break lines provide information regarding specifications.

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**Methods of Evaluation:**

1. Quizzes
2. Tests
3. Class participation

**Course Content Outline:**

1. Lines on drawings
  - a. Property lines
    - i. Structure
    - ii. Weight
  - b. Line weights
  - c. Abbreviations
  - d. Conventions and symbols
  - e. Drawing sheets
2. Residential versus commercial
  - a. Plans, elevations, sections and details
  - b. Drawing sheets
    - i. Architectural
    - ii. Structural
    - iii. Electrical
    - iv. Mechanical
  - c. Commercial drawings
    - i. Reflective ceiling plans
    - ii. Shop drawing
    - iii. Schedules
      1. Footing
      2. Reinforcing steel
      3. Room finish
      4. Hardware
    - iv. Scales
3. Measurements and materials
  - a. Measurements
    - i. Property measurements
    - ii. Building lineal footage
    - iii. Mechanical lengths
    - iv. Walls

- v. Structural
- vi. Landscaping
- b. Material
  - i. Sitework
  - ii. Structural
  - iii. Architectural
  - iv. Rough
  - v. Finishes
- 4. Building features
  - a. Offsets and projections
    - i. Appendages
    - ii. Specialty rooms
  - b. Centerlines
    - i. Columns
    - ii. Partitions
  - c. Floor plans
    - i. Room sizes
    - ii. Centerlines
    - iii. Window and door locations
  - d. Details and sections
  - e. Break lines and specifications

## Resources

Proctor, T. *Printreading*. 5th. Oland Park, IL, 2010.

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Proctor, T. *Building Trades Printreading*. 3rd. Homewood, Illinois, 2000.

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## Resources Other

[www.zompisten](http://www.zompisten) (<http://www.zompisten>).  
[wikipedia.org/wiki/Construction\\_grammar.com/kit.html](http://wikipedia.org/wiki/Construction_grammar.com/kit.html) ·  
[learningconstruction.com/language.aspx](http://learningconstruction.com/language.aspx)  
[constructionjargon.com](http://constructionjargon.com)

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