

ATCM-2320: BLUPRINT FUNDAMENTALS - CONSTRUCTION

Cuyahoga Community College

Viewing: ATCM-2320 : Blueprint Fundamentals - Construction

Board of Trustees:

March 2020

Academic Term:

Fall 2020

Subject Code

ATCM - Appd Indus Tech-Cement Masonry

Course Number:

2320

Title:

Blueprint Fundamentals - Construction

Catalog Description:

Study of basic plans to identify information included in a set of written specifications pertaining to concrete and estimating amount of materials needed for the project.

Credit Hour(s):

2

Lecture Hour(s):

2

Requisites

Prerequisite and Corequisite

Departmental approval: admission to Cement Mason's apprenticeship program.

Outcomes

Course Outcome(s):

Use the project manual to identify specifications that apply to concrete construction.

Objective(s):

1. Identify terms associated with the Construction Specifications Institute (CSI) master format.
2. List the items found in a project manual.

Course Outcome(s):

Determine which sections and pages of the blue print to use to find information on specified job.

Objective(s):

1. Match lines in the alphabet of lines to their correct uses.
2. Identify lines in the alphabet of lines.
3. Identify architectural symbols commonly used to represent materials on plans.

Course Outcome(s):

Use blueprints to obtain correct information about dimensions of a given job.

Objective(s):

1. Match terms associated with blueprints to their correct definitions.
2. Match correct definitions to the types of drawings usually included in a set of blueprints (plans).
3. List information found on types of drawings in a set of plans.

Methods of Evaluation:

1. All students will be evaluated during the first two weeks and at mid-term. Progress reports will be issued per procedure. Additional course evaluations and final examination are detailed below:
 - a. Quizzes
 - b. Tests
 - c. Class participation
 - d. Group activities
 - e. Hands on projects

Course Content Outline:

1. Terms and definitions associated with blueprint reading
 - a. Architect's drawings
 - b. Blueprints
 - c. Perspective drawing
 - d. Structural drawing
 - e. Mechanical drawing
 - f. Specifications
 - g. Finish schedule
 - h. Architect's scale
 - i. Scale drawing
 - j. Convention
 - k. Visualization
 - l. Dimensions
 - m. Nominal dimension
 - n. Actual
 - o. Elevation
 - p. Benchmark
 - q. Topographical survey
 - r. Contour
2. Descriptions of types of drawings
 - a. Plot plan
 - b. Foundation plan
 - c. Floor plan
 - d. Elevation
 - e. Section
 - f. Detail
3. Information found on types of drawings in a set of plans
 - a. Plot plan
 - b. Foundation plan
 - c. Floor plan
 - d. Elevation
 - e. Section
 - f. Detail
4. Uses of lines in the alphabet of lines
 - a. Object lines
 - b. Dimension line
 - c. Extension line
 - d. Hidden line
 - e. Center line
 - f. Cutting plane line (section line)
 - g. Phantom line
 - h. Break line
 - i. Leader line
5. Lines in the alphabet of lines
 - a. Phantom line
 - b. Other line

6. Materials symbols used in plans
 - a. General plan symbols
 - b. Section view symbols
7. Project manual
 - a. Bidding documents
 - i. Advertisement for invitation of bids
 - ii. Instruction to bidders
 - iii. Bid forms
 - iv. Agreement forms
 - b. General conditions
 - c. Supplemental conditions
 - d. Technical specifications
 - i. Quality of materials
 - ii. Standard of workmanship
 - iii. Methods of installation and erection
 - iv. Quality control and quality assurance procedures

Resources

Proctor, Thomas E. *Print Reading for Residential and Commercial Construction*. 6th ed. American Technical Publishers, 2016.

Resources Other

Construction Specification Institute. <https://www.csiresources.org/home>. 2019.

- <https://www.opcmia.org/training/>
- Concrete and Cement Masonry, Developed by the Curriculum and Instructional Materials Center for the Trade and Industrial Education Division Oklahoma Department of Career and Technology Education, 2002

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