

ATPL-2580: DESIGN AND LAYOUT

Cuyahoga Community College

Viewing: ATPL-2580 : Design and Layout

Board of Trustees:

2012-06-28

Academic Term:

Spring 2019

Subject Code

ATPL - Applied Ind Tech - Plumbers

Course Number:

2580

Title:

Design and Layout

Catalog Description:

Utilization of residential and commercial drawings to identify mechanical areas within a structure where problem situations exist including conflicting elevations, illegal venting, interferences and others. In addition, writing "requests for information" (RFI's), and change work orders will be covered.

Credit Hour(s):

2

Lecture Hour(s):

2

Requisites

Prerequisite and Corequisite

Departmental approval: admission to Plumbers' apprenticeship program.

Outcomes

Course Outcome(s):

1. Review the basic concepts of reading residential and commercial drawings.

Course Outcome(s):

2. Identify mechanical specifications and details as shown on construction drawings that conflict with applicable codes.

Course Outcome(s):

3. Integrate the construction drawings into construction installations and list potential installation problems.

Methods of Evaluation:

1. Homework
2. Quizzes
3. Tests
4. Participation

Course Content Outline:

1. Blueprint reading standards
 - a. Residential drawings
 - b. Commercial drawings
 - c. Basic concepts

- i. Conventions
 - ii. Symbols
 - iii. Abbreviations
 - d. Mechanical requirements
 - i. Plans
 - ii. Sections and details
 - iii. Elevations
 - e. Code compliant installations
 - i. Schematic drawings
 - ii. Isometric drawings
 - iii. Supply lines
 - iv. Waste systems
 - v. Storm drainage
 - vi. Venting systems
 - f. Location
 - i. Mechanical systems
 - ii. Equipment
- 2. Specifications and details
 - a. Applicable codes
 - b. Interferences and conflicts
 - i. Sections and details
 - ii. Plans
 - c. Cross connections and venting
 - d. Problem areas
 - i. Identification
 - ii. Solutions
- 3. Drawings and construction
 - a. Chain of command
 - i. Management
 - ii. Labor
 - b. Communication
 - i. Architect
 - ii. Owner
 - iii. Engineer
 - iv. Supervision
 - v. Labor
 - c. Request for information
 - d. Change orders
 - i. Documentation
 - ii. Labor
 - iii. Materials

Resources

State of Ohio. *2007 Ohio Plumbing Code*. Country Club Hills, IL : International Code Council, 2007.

Barrie, Donald S. and Boyd C. Paulson, Jr. *Professional Construction Management*. 3rd Ed. New York: McGraw-Hill Book Company, 1992.

Halpin, Daniel W. and Ronald W. Woodhead. *Construction Management*. 2nd Ed. New York: John Wiley and Sons, 1998.

Hodgetts, R.M. *Management: Theory, Process and Practice*. Philadelphia: W.B. Saunders Co, 1979.

Kerzner, H. *Project Management: A Systems Approach to Planning, Scheduling and Controlling*. 2nd Ed. New York: Van Nostrand Reinhold, 1984.

Project Management Institute. *A Guide to the Project Management Body of Knowledge*. Newtown Square, PA, 2000.

Levitt, R.E., R.D. Logcher and N.H. Quaddumi. "ASCE Journal of Professional Issues in Engineering" 1984-10-01 00:00:00.0.

Moolin, F.P., Jr., and F.A. McCoy. "Civil Engineering" pp. 51-54. 1981-11-01 00:00:00.0.

Murray, L., E. Gallardo, S. Aggarwal and R. Waywitka. "ASCE Journal of Construction Division" 1981-12-01 00:00:00.0.

Resources Other

1. www.management.about.com/od/projectmanagement/a/scope-assumptions-risk.htm
2. www.microsoft.com/project
3. www.pmbook.ce.cmu.edu/02_Organizing_For_Project_Management.html

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