Course Information Form (CIF)

Course Code: PFT 116
Course Title: Drawing Interpretation

Department: Applied Sciences and Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 46.0503
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 2-1-2
Credit Hour Distribution:

Lecture: 2	Lab: 1	Clinical: 0	**Total: 2**

General Course Information

Catalog Description

Drafting skills and applied pipe drafting and isometric drawings. Building plans and specifications. Mechanical plans for pipe layout systems.

General Course Objectives

Students will be able to draw and interpret isometric and non-isometric drawings, plans, and specifications.

Minimum Placement Levels

English	Reading	Math
None	None	None

Prerequisites

Admission into the Plumbers and Pipefitters Apprenticeship program

Methods of Evaluation

The minimum evaluation methods include 4 written exams and 4 practical exams.

Instructional Materials and Additional Supplies

Drawing Interpretation and Plan Reading, International Pipe Trades Joint Training Committee (IPTJTC), Inc. 2006.

Course Content

General Learning Outcomes (GLOs)

- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Basic Skills: a) Drawing Tools, b) Measuring Tools, and c) Lettering Skills	1. Discuss basic skills of isometric drawing including drawing tools, measuring tools, and lettering skills.	2	0	0
Drawings: a) Three-View, b) Plan View, and c) Elevation View	1. Discuss specific types of drawings including three-view, plan view, and elevation view drawings.	4	0	0
Symbols: a) Pipe Fittings, b) Valves, and c) Graphics	1. Identify graphic symbols for pipe fittings and valves.	2	0	0
Technical Drawings: a) Architectural, b) Mechanical, and c) Electrical	1. Interpret technical drawings.	2	1	0
Isometric Drawings: a) Architectural, b) Mechanical, and c) Electrical	1. Interpret isometric drawings.	3	1	0
Piping Drawings: a) Elevations, b) Center Lines, and c) Three-Dimensional	1. Interpret piping drawings.	4	2	0
Building Plans: a) General Layout and b) Coordination of Piping Systems	1. Interpret building plans.	4	2	0
Building Specifications: a) Materials and b) Installation	1. Interpret building specifications.	3	2	0
Conventional Pipe Lines: a) Isometric and b) Non-isometric	1. Draw conventional isometric and non-isometric pipe lines.	2	3	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Mechanical Drawings: a) Horizontal-to-horizontal Pipe Lines, b) Horizontal-to-vertical Pipe Lines, and c) Vertical-to-horizontal Pipe Lines	1. Draw mechanical plans using isometric drawings for specific pipe layout systems.	2	3	0
Compass Points: a) Layout and b) Orientation of Drawings	1. Demonstrate correct use of compass points to orientated drawings.	2	1	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	15	0