

AutoCAD --- Plant 3D Essentials

AutoCAD Plant 3D is used by plant and process design and engineering teams to efficiently produce intelligent P&IDs and 3D piping models. Plant 3D develops relationships between the P&ID and 3D piping models to ensure the design is validated and adheres to the project specifications

At the completion of this course, students will have learned how to create a project, develop P&IDs and link the P&IDs to 3D piping. Students will also have developed a strong foundation in 3D pipe modeling, equipment modeling and placement, orthographic drawings and ISO & spool generation

Who should attend?

This is a beginner-level course for engineers and designers who are presently using AutoCAD software

Prerequisites

Plant and process design, drafting or engineering experience is recommended. 1-3 years AutoCAD experience is necessary. Students should have a working knowledge of the Microsoft Windows environment.

Questions?

Please call us at 800-336-3375.

Course Outline

Introduction to AutoCAD Plant 3D

- AutoCAD Plant 3D User Interface
- AutoCAD Plant 3D Workspaces
- AutoCAD Plant 3D

Creating Projects

- Project Manager
- File Organization
- Creating a new project
- Project properties
 - Managing layers and colors
- Introduction to specs and catalogs

P&IDs

- Create a new P&ID drawing
- P&ID tool palette
 - Introduction to palette customization
- Placing equipment
 - Tagging
 - Nozzles
- Placing service lines
- Editing lines
- Placing in-line valves and commodities
- Creating new symbols
- Off-page connectors

Plant 3D

- Create structures
 - Grids
 - Structural members
 - Stairs/Railing
 - Ladders
 - Footings
 - Editing members
 - Graphical representation options
- Equipment
 - Create new equipment
 - Pumps
 - Heat exchangers

AutoCAD --- Essentials [CONTINUED]

- Nozzles
- Routing Pipes
 - Specs
 - Routing a new pipe line
 - Routing a pipe line from P&ID
 - Route from/to equipment
 - Placing in-line commodities
 - Flanges
- Modify Piping
 - Change fittings
 - Change valves
 - Instrumentation
- Pipe Supports
 - Selecting support type
 - Placing support
 - Editing support
 - Custom supports

Orthographic Drawings

- Create a new orthographic drawing
- Add annotations to drawing
- Toggle 3D and ortho
- Updating orthos
- Xrefs

Isometric Drawings

- Isometric Settings
- Establish symbology and layout settings
- Quick Isos
- Production Isos
- Edit Iso
- Export to Pipe Component File (.PCF)

Manage Data and Generate Reports

- Data Manager
 - Export to Excel
 - Import from Excel
 - Edit data
 - Filter information
- Project Reports
 - Report templates and layout editor
 - Generate reports
 - Import/Export