

# AutoCAD Plant 3D Essentials

## Training course outline

The AutoCAD Plant 3D specialised toolset is a plant layout design tool used by designers and engineers to model and document process plants in 3D.

Our *AutoCAD Plant 3D Essentials* course teaches new users how to build and maintain 3D process plant models and create content.



### Course summary

Teaches new users how to use the key features available in AutoCAD Plant 3D for building, maintaining and creating content for 3D process plant models. Sessions cover:

- Creating projects and P&IDs
- Creating structures
- Creating equipment
- Editing specifications and catalogs
- Routing pipes
- Adding valves, fittings and pipe supports
- Creating isometric drawings
- Creating orthographic drawings
- Managing data and creating reports

### Duration

Three days.

### Who should attend?

Newcomers to AutoCAD Plant 3D and novice AutoCAD Plant 3D users.

### Prerequisites

You should have a good working knowledge of AutoCAD for 2D drafting, i.e. be familiar with the topics taught in our *AutoCAD Essentials* course (see [armada.co.uk/autocadess/syllabus](http://armada.co.uk/autocadess/syllabus)).

### In-class or live online

You can attend in-person at our centres, or participate live online from your place of work or home.

To read about our approach to online training, see [armada.co.uk/liveonline](http://armada.co.uk/liveonline).

### General information

Armada is a long-standing Autodesk authorised Training Centre (ATC), and our courses are accredited by Autodesk.

Courses are hosted by Autodesk Certified Instructors (ACIs) with vast experience of using the application professionally.

Whilst attending training at our centres, you'll have the use of a computer running licensed software to practice the techniques taught.

Refreshments and lunch are provided.

Course fees can be paid by card or bank transfer. We accept purchase orders from UK-registered companies and public sector organisations.

### Course materials and certificate

You'll receive:

- A comprehensive training guide and practice files.
- An e-certificate confirming successful completion of an accredited *AutoCAD Plant 3D* course.

### Method of delivery

Training is designed for the busy professional, being short and intensive and combining lecture and demonstration. Practical exercises carried out under guidance help you learn the techniques taught.

You have ample opportunity to discuss specific requirements with the trainer.

### After course support

Following training, you're entitled to 30 days' email support from your trainer.

### Further information

See [armada.co.uk/course/p3d](http://armada.co.uk/course/p3d).

### Course syllabus

See over.

Topics	Sub-topics
<b>Session 1: Introduction to AutoCAD Plant 3D</b>	<ul style="list-style-type: none"> <li>Working on a project</li> <li>AutoCAD Plant 3D user interface</li> <li>Different workspaces in AutoCAD Plant 3D</li> <li>Grips</li> <li>Invoking commands</li> <li>AutoCAD Plant 3D dialog boxes</li> <li>Opening a drawing not in the project</li> </ul>
<b>Session 2: Creating projects and P&amp;IDs</b>	<ul style="list-style-type: none"> <li>PROJECT MANAGER</li> <li>Creating a new AutoCAD Plant 3D project</li> <li>Defining a P&amp;ID</li> <li>Validating a drawing</li> <li>Editing a drawing</li> <li>Adding intelligence to custom P&amp;ID symbols</li> </ul>
<b>Session 3: Creating structures</b>	<ul style="list-style-type: none"> <li>Creating a grid</li> <li>Setting the representation of the structural member</li> <li>Adding members</li> <li>Creating stairs, railings, ladders, plates/grates, footings</li> <li>Editing the structural members</li> <li>Visibility options</li> <li>Exchanging data with other applications</li> </ul>
<b>Session 4: Creating equipment</b>	<ul style="list-style-type: none"> <li>Placing equipment in a drawing</li> <li>Adding vessels, heat exchangers, pumps, heaters</li> <li>Creating a customised equipment</li> <li>Modifying equipment</li> <li>Converting solid models into equipment</li> <li>Converting Inventor models into equipment</li> <li>Attaching and detaching objects</li> <li>Adding nodules</li> </ul>
<b>Session 5: Editing specifications and catalogs</b>	<ul style="list-style-type: none"> <li>Gelling Started with the Spec Editor</li> <li>Working with Spec Files</li> <li>Working with the Catalog Editor</li> <li>Creating a new catalog from an existing catalog</li> <li>Adding a new part to a catalog</li> <li>Modifying the Branch Table</li> </ul>

Topics	Sub-topics
<b>Session 6: Routing pipes</b>	<ul style="list-style-type: none"> <li>Selecting a Spec</li> <li>Working with the Spec Viewer</li> <li>Routing a pipe</li> <li>Creating branches</li> <li>Creating a weld connection</li> <li>Creating Autodesk Connection Point</li> </ul>
<b>Session 7: Adding valves, fittings and pipe supports</b>	<ul style="list-style-type: none"> <li>Adding valves and fittings</li> <li>Adding pipe supports</li> <li>Insulating a pipe</li> <li>Modifying pipe components using grips</li> <li>Validating a 3D model</li> </ul>
<b>Session 8: Creating isometric drawings</b>	<ul style="list-style-type: none"> <li>Isometric drawing types</li> <li>Creating a quick isometric drawing</li> <li>Creating a production isometric drawing</li> <li>Placing Iso messages and annotations</li> <li>Exporting a pipe component file</li> <li>Configuring isometric drawing settings</li> </ul>
<b>Session 9: Creating orthographic drawings</b>	<ul style="list-style-type: none"> <li>Generating the first view</li> <li>Creating the adjacent view</li> <li>Adding annotations and dimensions</li> <li>Locating a component in the 3D model</li> <li>Editing a drawing view</li> <li>Adding grips to pipes</li> <li>Generating Bill of Material</li> <li>Creating BOM annotation</li> </ul>
<b>Session 10: Managing data and creating reports</b>	<ul style="list-style-type: none"> <li>Viewing data in the DATA MANAGER</li> <li>Modifying the display of data</li> <li>Zooming to plant objects</li> <li>Editing data in the DATA MANAGER</li> <li>Placing annotations in P&amp;ID using the DATA MANAGER</li> <li>Filtering information in the data table</li> <li>Exporting data from the DATA MANAGER</li> <li>Importing data to the DATA MANAGER</li> <li>Viewing DATA MANAGER reports</li> <li>Working with the Report Creator</li> </ul>