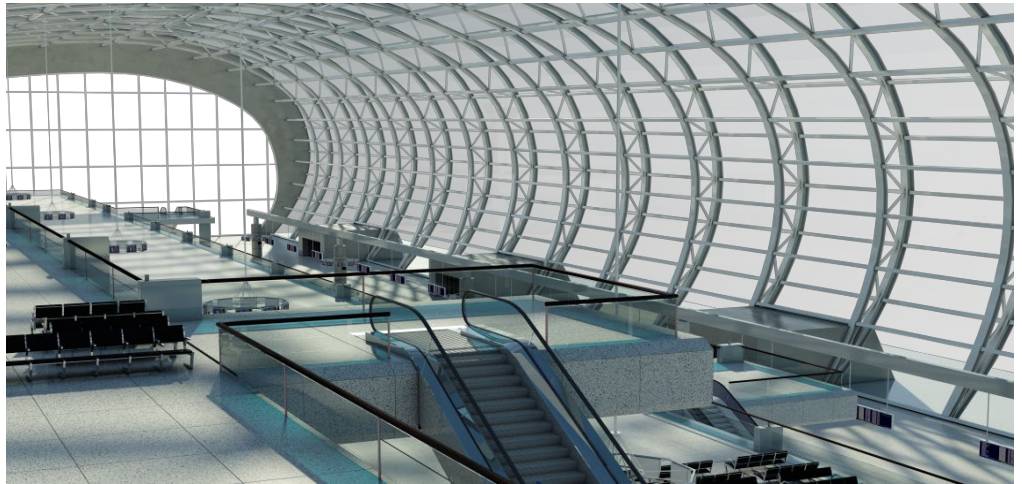# AutoCAD 3D
Training course outline

Introduces the concepts behind 3D modelling in AutoCAD, teaching everything you need to create 3D models from your 2D designs, and work in the 3D environment.

Course summary

Teaches the fundamentals of 3D modelling, teaching you how to:

- Create 3D models from 2D designs.
- Use solid modelling, surface modelling and mesh modelling techniques.
- Create full working drawings of your 3D models.
- Produce visualisations of models, incorporating lighting and materials.

Duration

Two days.

Who should attend?

This course is for users proficient in using AutoCAD to produce 2D drawings who now want to take advantage of AutoCAD's 3D drawing and modelling capabilities.

Prerequisites

Delegates should have a good working knowledge of AutoCAD, i.e. have attended *AutoCAD Essentials* training or have equivalent knowledge through other means.

In-class or live online

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

To read about our approach to online training, see armada.co.uk/live-online-training.

General information

Armada is an Autodesk authorised Training Centre (ATC), and our *AutoCAD 3D* course is accredited by Autodesk.

AutoCAD 3D courses are hosted by Autodesk Certified Instructors (ACIs) with vast experience of using AutoCAD in industry.

Whilst attending training at our centres, delegates have the use of a computer running licensed AutoCAD 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.

If you're self-funding your training, you can pay in staged payments, interest-free, over 12 months.

Course materials and certificate

Delegates receive:

- A comprehensive AutoCAD 3D training guide.
- An e-certificate from Autodesk confirming attendance on an accredited *AutoCAD 3D* training 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 delegates to learn the techniques taught.

Delegates have ample opportunity to discuss their specific requirements.

After course support

Following AutoCAD 3D training, you're entitled to 30 days' email support from your trainer.

Further information, prices & dates

See: armada.co.uk/course/autocad3d.

Course syllabus

See over.

Course syllabus

Session	Topics
Navigating the 3D space	Changing workspaces
	Using the ViewCube
	Understanding the view controls and User Co-ordinate Systems (UCS)
	Using Dynamic UCS
	Using perspective and parallel views
Solid modelling	Primitive creation
	Boolean construction - Union, Subtraction, Intersect and Interfere
	Creating Lofts, Sweeps and Revolves
	Solid models with the Presspull tool.
	Solid model editing
	Sub objection selection and manipulation within a solid
Surface modelling	Splines and their use in Surface models
	Creating Lofts, Sweeps and Revolves
	Sub objection selection and manipulation within a surface
	An introduction to NURBS
	Conversion to a solid model

Session	Topics
Mesh modelling	Primitive creation
	Sub-object selection and manipulation within a mesh
	Smoothing and creasing a mesh model
	Conversion to a solid model
Model manipulation	Moving, rotating and scaling using the Gizmo
	Using the Rotate3D tool
Drafting in the 3D environment	Lines, Polylines and 3D Polylines
Viewing 3D models and the paper space environment	Viewport creation
	Creating a section and using the clipping planes
	Using the Base tool to create a detail drawing set
	Annotation
Printing	Using visuals styles and hidden line removal
	Output to a 3D printer for fast prototyping
Rendering	Camera settings
	Task and environmental lighting
	An introduction to materials
	Applying materials
	Render settings and output types

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