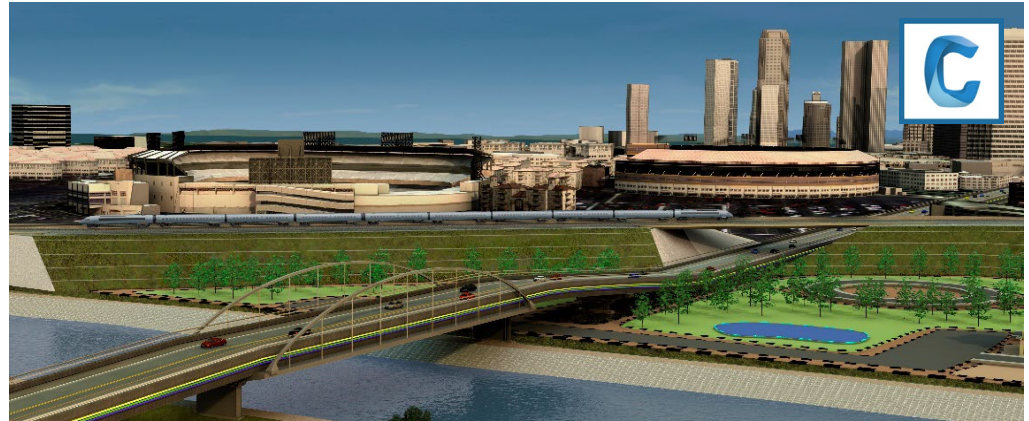


# Civil 3D Essentials

## Training course outline

Civil 3D is the de-facto standard software for civil engineering and design. It provides everything you need for surveying, mapping, design, documentation and analysis. It offers easy integration with InfraWorks, Revit Structure and more, and supports BIM workflows.

Civil 3D *Essentials* training provides a thorough grounding in Civil 3D for beginners. On completion you will be able to use Civil 3D for civil design, transportation work, land planning and development.



### Course summary

Teaches the fundamentals of Civil 3D, including:

- Working with point data.
- Surface modelling.
- Developing sites.
- Modelling roads, corridors and pipe networks.
- Data sharing, presentation and visualisations.

**Duration**  
3 days.

### Who should attend?

Newcomers to Civil 3D and novice Civil 3D users who want a thorough grounding in the application and its key features.

Typical delegates include civil engineers, land planners and surveyors.

### 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](http://armada.co.uk/live-online-training).

### General information

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

Civil 3D courses are hosted by Autodesk Certified Trainers (ACTs) vast experience using Civil 3D in industry.

Whilst attending training at our centres, delegates have the use of a computer running licensed Civil 3D 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 Civil 3D training guide.
- An e-certificate from Autodesk confirming attendance on an accredited *Civil 3D Essentials* 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 learn the techniques taught.

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

### After course support

Following Civil 3D training, delegates are entitled to 30 days' email support from their trainer to help with any post-course issues.

### Civil 3D professional certification

Armada is an authorised Autodesk Certification Centre (ACC) offering Autodesk professional certification exams which lead to 'Autodesk-certified professional in Civil 3D' status.

### Further information

See: [armada.co.uk/course/civil-3d-training](http://armada.co.uk/course/civil-3d-training).

### Course syllabus

See over.

# Course syllabus

Topics	Sub-topics
<b>Getting Started with Civil 3D</b>	Windows on the Model It's All About Style The Underlying Engine Labeling Lines and Curves Creating Curves Using Transparent Commands Using Inquiry Commands Establishing Drawing Settings
<b>Data Input</b>	Survey: The Survey Tab Exploring the Survey Database Using the Figure Prefix Database Using the Survey Data Wizard Automatic line generation from Points and Code Sets  Points: Anatomy of a Point Creating Basic Points Basic Point Editing Point Styles Point Label Styles Point Tables User-Defined Properties
<b>Surface Modelling</b>	Creating Surfaces in Civil 3D Refining and Editing Surfaces Surface Styling and Analysis Comparing Surfaces Labeling the Surface Calculating Volume from two surfaces Creating Isopachyte surface Viewing and analysing Isopachyte surfaces

Topics	Sub-topics
<b>Pipes and Pipe Networks</b>	Parts Lists and Part Builder: Planning a Typical Pipe Network - a Sanitary Sewer Example The Part Catalog Part Builder Part Styles Part Rules Parts List  Pipe Networks: Defining property and location Exploring Pipe Networks Pipe Network Object Types Creating a Sanitary Sewer Network Changing Flow Direction Editing a Pipe Network Creating an Alignment from Network Parts Drawing Parts in Profile View Adding Pipe Network Labels Creating an Interference Check between a Storm and Sanitary Pipe Network
<b>Alignments and Corridors</b>	Profiles: Elevate Me Profile Display and Stylization A Better Point of View Profile Utilities Editing Profile Views  Corridors: Understanding Corridors Creating a Simple Road Corridor Corridor Anatomy Adding a Surface Target for Daylighting Applying a Hatch Pattern to a Corridor Creating a Corridor Surface Performing a Volume Calculation Creating a Corridor with a Lane Widening

# Course syllabus

Topics	Sub-topics
<b>Alignments and Corridors</b> <i>continued...</i>	<p><b>Alignments:</b></p> <ul style="list-style-type: none"><li>Creating a Horizontal Alignment</li><li>Creating a Profile from an Alignment</li><li>Vertical Alignments</li><li>Offset Alignments</li><li>Using Widened Alignments</li><li>Editing and refining Alignment Geometry</li></ul> <p><b>Assemblies and Subassemblies:</b></p> <ul style="list-style-type: none"><li>Subassemblies</li><li>Building Assemblies</li><li>Working with Generic Subassemblies</li><li>Working with Daylight Subassemblies</li><li>Saving Subassemblies and Assemblies for Later Use</li></ul> <p><b>Intersections and roundabouts:</b></p> <ul style="list-style-type: none"><li>Getting Creative with Corridor Models</li><li>Using Alignment and Profile Targets to Model a Roadside Swale</li><li>Modeling a Peer-Road Intersection</li><li>Modeling a Cul-de-sac</li><li>Modeling a Widening with an Assembly Offset</li><li>Using a Feature Line as a Width and Elevation Target</li></ul> <p><b>Cross Sections and Mass Haul:</b></p> <ul style="list-style-type: none"><li>The Corridor</li><li>Lining Up for Samples</li><li>Creating the Views</li><li>Creating a Single-Section View</li><li>It's a Material World</li><li>A Little More Sampling</li><li>Annotating the Sections</li></ul>

Topics	Sub-topics
<b>Grading</b>	<ul style="list-style-type: none"><li>Working with Grading Feature Lines</li><li>Grading Objects</li></ul>
<b>Data Sharing and Presentation</b>	<p><b>Data Shortcuts:</b></p> <ul style="list-style-type: none"><li>What Are Data Shortcuts?</li><li>Publishing Data Shortcut Files</li><li>Using Data Shortcuts</li></ul> <p><b>LDT and LandXML:</b></p> <ul style="list-style-type: none"><li>What Is LandXML?</li><li>Handling Inbound Data</li><li>Sharing the Model</li></ul> <p><b>Quantity Takeoff:</b></p> <ul style="list-style-type: none"><li>AutoCAD 3D Modelling Workspace</li><li>Handling Inbound Data</li><li>Sharing the Model</li></ul> <p><b>Plan Production:</b></p> <ul style="list-style-type: none"><li>Preparing for Plan Sets</li><li>Prerequisite Components</li><li>Using View Frames and Match Lines</li><li>Creating Plan &amp; Profile Sheets</li><li>Creating Section Sheets</li><li>Supporting Components</li></ul> <p><b>Visualisation:</b></p> <ul style="list-style-type: none"><li>AutoCAD 3D Modelling Workspace</li><li>Handling Inbound Data</li><li>Sharing the Model</li></ul>