

COURSE TITLE:	Autodesk Civil 3D 2017 Essentials
DESCRIPTION:	<p>Learn the essentials of AutoCAD® Civil 3D® 2017 in this three-day training class, intended to give users comprehensive experience with the features and benefits of AutoCAD Civil 3D.</p> <p>AutoCAD Civil 3D software permits the rapid development of alternatives through its model-based design tools. You will learn techniques enabling you to organise project data, work with points, create and analyse surfaces, model road corridors, create land parcel layouts, perform grading and volume calculation tasks, and layout pipe networks.</p>
LENGTH:	<p>3 Days</p> <p>Due to the flexibility of Civil3D covering a broad range of project types, it is recommended for groups (or individuals on a one to one basis) to discuss their specific requirements so that we can tailor a course to suit your needs and therefore maximise the learning experience.</p>
WHO SHOULD ATTEND:	Users who want to learn essential elements of AutoCAD Civil 3D for creating, analysing, and managing civil engineering drawings and projects.
COURSE OUTLINE:	<p>AutoCAD Civil 3D Environment</p> <ul style="list-style-type: none"> • The User Interface • Leveraging a Dynamic Environment • Understanding Object Styles and Label Styles • Creating Drawing Templates <p>Establishing Existing Conditions Using Survey Data</p> <ul style="list-style-type: none"> • Importing Raw Survey Data • 'Connecting the Dots' Linework Code Sets • Importing Point Files • Managing Points • LIDAR Data <p>Modelling the Existing Terrain Using Surfaces</p> <ul style="list-style-type: none"> • Creating Surfaces • Analysing, Displaying and Annotating Surfaces • Point Cloud Surfaces

Horizontal Alignments

- Creating Alignments from Objects
- Create by Layout
- Design Check-Based Alignments and Superelevation
- Widening Offset Alignments
- Geometry Editing – Tabular & Grips

Vertical Design Profile

- Creating Longitudinal Ground Profiles
- Creating Vertical Design Profiles
- Editing Profile Geometry
- Superimposing Profiles and Object Projection
- Labeling Profiles and Profile Views

Designing in 3D Using Corridors

- Building the Cross Section Assemblies
- Creating a Corridor Model
- Understanding Targets
- Junction Design
- Creating Corridor Surfaces
- Performing a Volume Calculation

Cross Sections and Quantities

- Creating Cross Sections
- Calculating Corridor Quantities
- Creating Quantity Reports

Design New Terrain – Grading

- Working with Grading Feature Lines
- Creating Final Grading Surfaces
- Calculating Volumes and Balancing Volumes
- Labeling Final Grading Surface

Designing and Analysing Boundaries Using Land Parcels

- Managing Sites
- Creating Parcels and Precise Sizing
- Display Control and Annotating Parcels

Pipes Networks

- Understanding Gravity Pipe Networks
- Creating and Editing Pipe Networks
- Drawing Pipes in Profile Views
- Pressure Pipes

	<p>Additional Topics (for Tailored Courses)</p> <p>Advanced Corridors</p> <ul style="list-style-type: none"> • MultiRegion Baselines • Specialised Sub Assemblies • More Junction Design <p>Plan Production</p> <ul style="list-style-type: none"> • Using Sheet Frames and Match Lines • Creating Plan & Profile Sheets • Crating Section Sheets <p>Managing the Project Drawings</p> <ul style="list-style-type: none"> • Working with Data Shortcuts • Use of XRefs in Civil3D • Optimising Performance <p>Quantity TakeOff</p> <ul style="list-style-type: none"> • Understanding Pay Items • Pricing the Road Corridor • Pipes and Manholes as Pay Items • Inventorying Your Pay Items <p>Digging Deeper into Styles</p> <ul style="list-style-type: none"> • Object Styles • Label Styles • Code Set Styles • Style Manager <p>Map3D</p> <ul style="list-style-type: none"> • Connecting to GIS in Civil3D • Surfaces from GIS Data • Digital Terrain Models (or DEM) • Querying Capabilites
<p>PRE-REQUISITES:</p>	<p>This guide is designed for new AutoCAD Civil 3D users. It is recommended that you have:</p> <ul style="list-style-type: none"> • Knowledge of civil engineering principles and processes. • A working knowledge of AutoCAD®.
<p>MATERIALS PROVIDED:</p>	<p>AutoCAD Civil 3D 2017 Training Manual</p>