

AutoCAD Civil 3D for Engineering – Essentials

AutoCAD Civil 3D connects design and documentation to help boost your productivity. Whether you're working on land development, transportation or environmental projects, Civil 3D is a better design, drafting and analysis solution for all civil engineers.

After completing this course, students will be able to create basic site plans using points, surfaces, alignments, profiles, underground pipe systems, and corridors. Students will be able to create grading solutions and calculate site volumes, as well as create cross sections.

Who should attend?

This is a beginner-level course for civil engineers and drafters who are presently using any type of CAD-based software.

Prerequisites

There are no required prerequisites for this course. However, to get the most from it, students should be comfortable using any type of CAD software and working in a Microsoft Windows environment.

Duration

3 Days

Questions?

Please call us at 800-336-3375.

Course Outline

Day 1

Understanding the AutoCAD Civil 3D Environment

- Navigating the Ribbon
- Prospector & Setting Tabs
- Object and Label Styles
- Modify Drawing Settings, Annotation Scaling, and Annotative Objects
- Using Command Settings to Set Default Styles, Naming Templates and Parameters

Introduction to Points

- Importing and Creating Points
- Managing Points
- Using Grips to Control Graphical Point Display
- Introduction to the Survey Database

Introduction to Surfaces

- Creating a Surface
- Modifying the Surface Properties
- Editing a Surface
- Assigning a Contour Style and Apply Surface Labels

Introduction to Parcel Creation

- Creating a Right-of-Way
- Creating Parcels using Layout Tools
- Creating Parcels from Objects
- Editing and Renumbering Parcels
- Labeling Parcels and Creating Tables

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Day 2

Introduction to Alignments

- Creating an Alignment from Objects and Using the Alignment Layout Tools
- Editing and Annotating Alignments
- Creating Offset Alignments
- Creating a Widening

Introduction to Existing and Design Profiles

- Creating a Profile from a Surface
- Creating a Profile View
- Creating a Design Profile using Layout Tools
- Editing Profile Geometry
- Annotating Profiles and Profile Views

Introduction to Corridors

- Creating an Assembly and Modify Assembly Properties
- Creating a Corridor
- Modifying the Corridor Properties
- Creating a Corridor Surface

Day 3

Plan Production

- Creating View Frames
- Creating Section Sheets
- Creating Profile Sheets

Basic of Creating Cross Sections

- Creating Cross-Section Sample Lines
- Creating Cross-Sections Views
- Annotating Cross Section

Basics of Grading Tools

- Creating and Edit Feature Lines
- Creating Grading Objects
- Calculating Grading Volumes

Introduction to Pipe Networks

- Working with Pipe and Structure Rules
- Creating a Pipe Network
- Drawing Pipes in Profile View and Cross Sections
- Editing Pipe Networks
- Labeling Pipes in Plan and Profile

Data Management

- AutoCAD External References
- Data Shortcuts and Reference Objects
- Viewing LandXML Reports
- Import/Export LandXML
- Proper Document Construction