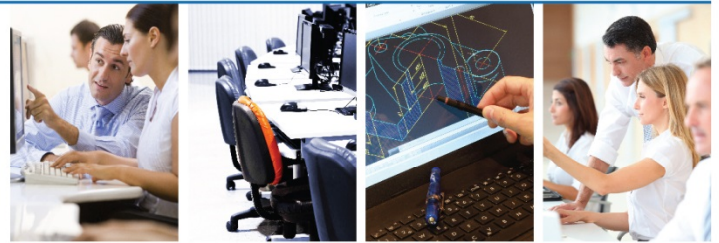# CIVIL 3D 2018 FUNDAMENTALS

COURSE OUTLINE

Class Description

The U.S.CAD Civil 3D 2018 Fundamentals class is designed for Civil Engineers and Surveyors who want to take advantage of the AutoCAD Civil 3D software's interactive, dynamic design functionality. The AutoCAD Civil 3D software permits the rapid development of alternatives through its model-based design tools. You will learn techniques enabling you to organize project data, work with points, create and analyze surfaces, model road corridors, create parcel layouts, perform grading and volume calculation tasks, and layout pipe networks.

Prerequisites

Experience with AutoCAD or AutoCAD-based products and a sound understanding and knowledge of civil engineering terminology.

Class Length: 3 days

Course Topics

AutoCAD Civil 3D Interface
- Product Overview
- Civil 3D Workspaces & User Interface
- Civil 3D Toolspace & Panorama

Project Management
- AutoCAD and Civil 3D Projects
- Sharing Data
- Using Data Shortcuts for Project

Parcels
- Lines and Curves
- Introduction to Parcels
- Creating & Editing Parcels by Layout Overview
- Creating & Editing Parcels
- Renumbering Parcels
- Parcel Reports
- Parcel Labels
- Parcel Tables

Survey
- Survey Workflow Overview
- Introduction to the Survey Toolspace
- Survey Figures
- Points Overview
- Point Settings
- Creating Points
- Importing Survey Data
- Point Group
- Reviewing and Editing Points
- Point Report

Surfaces
- Surface Process
- Surface Properties
- Contour Data
- Other Surface Data
- Breaklines and Boundaries
- Surface Editing
- Surface Analysis Tools
- Surface Lables
- Surface Volume Calculations
- Surface Analysis Display
- Point Cloud Surface Extraction

Alignments
- Roadway Design Overview
- AutoCAD Civil 3D Sites
- Introduction to Alignments

- Alignments Layout Tools
- Alignment Properties
- Labels & Tables

Profiles
- Profile Overview
- Create a Profile View Style
- Create Profiles from Surface
- Create Profiles View Wizard
- Finished Group Profiles
- Create and Edit Profiles

Corridors
- Assembly Overview
- Modifying Assemblies
- Creating a Corridor
- Corridor Properties
- Designing Intersections
- Corridor Surfaces
- Corridor Visualization
- Corridor Section Review and Edit
- Corridor Visualization

Grading
- Grading Overview
- Feature Lines
- Grading Tools
- Modifying AutoCAD Civil 3D Grading

Pipe Networks
- Pipes Overview & Configuration
- Creating Networks from Objects
- The Network Layout Toolbar
- Network Editing
- Annotating Pipe Networks
- Pressure Pipe Network

Quantity Take Off/ Sections
- Sample Line Groups
- Section Volume Calculations
- Pay items
- Section Views

Plan Production
- Plan Production Tools and Objects
- Plan Production Object Editing
- Sheet Sets
- Creating Sheets

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