

## AutoCAD Civil 3D for Engineering – Essentials

AutoCAD Civil 3D 2016 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, including AutoCAD, Map 3D or Land Desktop.

### 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.

### Questions?

Please call us at 800-336-3375.

### Course Outline

#### 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

## AutoCAD Civil 3D for Engineering – Essentials [CONTINUED]

### 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

### Plan Production

- Creating View Frames
- Creating Construction Documents

### 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