

## Technical Education Services

### AutoCAD Civil 3D Fundamentals

**Course Length: 4 days**

The AutoCAD Civil 3D Fundamentals training course 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.

#### Topics Covered

- Learn the AutoCAD Civil 3D user interface.
- Create and edit parcels and print parcel reports.
- Create points and point groups and work with survey figures.
- Create, edit, view, and analyze surfaces.
- Create and edit alignments.
- Create data shortcuts.
- Create sites, profiles, and cross-sections.
- Create assemblies, corridors, and intersections.
- Create grading solutions.
- Create gravity fed and pressure pipe networks.
- Perform quantity takeoff and volume calculations.
- Use plan production tools to create plan and profile sheets

#### Prerequisites

Experience with AutoCAD® or AutoCAD-based products (such as Autodesk® Land Desktop) and a sound understanding and knowledge of civil engineering terminology.

*Course description shown for Autodesk AutoCAD Civil 3D 2018. Topics, curriculum, and/or prerequisites may change depending on software version.*



## Training Guide Contents

### Chapter 1: The AutoCAD Civil 3D Interface

- 1.1 Product Overview
- 1.2 AutoCAD Civil 3D Workspaces
- 1.3 AutoCAD Civil 3D User Interface
- 1.4 AutoCAD Civil 3D Toolspace
- 1.5 AutoCAD Civil 3D Panorama
- 1.6 AutoCAD Civil 3D Templates, Settings, and Styles

### Chapter 2: Project Management

- 2.1 AutoCAD Civil 3D Projects
- 2.2 Sharing Data
- 2.3 Using Data Shortcuts for Project Management

### Chapter 3: Parcels

- 3.1 Lines and Curves
- 3.2 Introduction to Parcels
- 3.3 Creating and Editing Parcels by Layout Overview
- 3.4 Creating and Editing Parcels
- 3.5 Renumbering Parcels
- 3.6 Parcel Reports
- 3.7 Parcel Labels
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### Chapter 4: Survey

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- 4.2 Survey Figures
- 4.3 Points Overview
- 4.4 Point Settings
- 4.5 Creating Points
- 4.6 Description Key Sets
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- 4.9 Reviewing and Editing Points
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## Chapter 5: Surfaces

- 5.1 Surface Process
- 5.2 Surface Properties
- 5.3 Contour Data
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- 5.6 Surface Editing
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- 6.2 AutoCAD Civil 3D Sites
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- 7.2 Create a Profile View Style
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- 8.1 Assembly Overview
- 8.2 Modifying Assemblies
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- 8.7 Corridor Section Review and Edit
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### Chapter 9: Grading

- 9.1 Grading Overview
- 9.2 Feature Lines
- 9.3 Grading Tools
- 9.4 Modifying AutoCAD Civil 3D Grading

### Chapter 10: Pipe Networks

- 10.1 Pipes Overview
- 10.2 Pipes Configuration
- 10.3 Creating Networks from Objects
- 10.4 The Network Layout Toolbar
- 10.5 Network Editing
- 10.6 Annotating Pipe Networks
- 10.7 Pressure Pipe Networks

### Chapter 11: Quantity Take Off/Sections

- 11.1 Sample Line Groups
- 11.2 Section Volume Calculations
- 11.3 Pay Items
- 11.4 Section Views

### Chapter 12: Plan Production

- 12.1 Plan Production Tools
- 12.2 Plan Production Objects
- 12.3 Plan Production Object Edits
- 12.4 Creating Sheets
- 12.5 Sheet Sets

### Appendix A: Additional Information

- A.1 Opening a Survey Database
- A.2 Design Data

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## Cancellation Policy

The following cancellation policy shall apply to all training engagements, Live Online, Consulting Services and Dedicated/Custom Training:

- Company reserves the right to reschedule or cancel the date, time and location of its class at any time. In the event that a Training Class is cancelled by Company, Customer is entitled to a full refund. Company shall not be responsible for any other loss incurred by Customer as a result of a cancellation or reschedule.
- For Customer cancellations when written notice is received (i) at least ten (10) business days in advance of the class, the Customer is entitled to a full refund of its payment or reschedule enrollment, (ii) less than ten (10) business days, Customer shall not be entitled to a refund, but shall receive a class credit to be used within three (3) months of the date of the original class.
- Student substitutions are acceptable with at least two (2) days prior notice to the class, provided substitution meets course prerequisites and is approved by Company's Training Coordinator ([trainingcoordinator@rand.com](mailto:trainingcoordinator@rand.com))
- For all Training orders, cancellation notices must be submitted to [trainingcoordinator@rand.com](mailto:trainingcoordinator@rand.com). Company is not responsible for any error in the delivery of the email notice. In the event of any reschedule of Consulting Services and/or Dedicated/Custom Training by Customer, Company will invoice Customer for all non-cancellable travel expenses.

To request more information or to see training locations, visit [www.imaginit.com/contact-us](http://www.imaginit.com/contact-us).

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