AutoCAD Civil 3D Essentials

Overview

This foundation-level courseware covers the essentials of AutoCAD Civil 3D. This four-day training course is intended to give students comprehensive experience with the features and benefits of AutoCAD Civil 3D. Hands-on exercises throughout the courseware explore how to create 2D and 3D drawings.

Prerequisites

Before using this courseware, the student should have a working knowledge of the following:

- Microsoft® Windows® Vista, Microsoft® Windows® XP, Microsoft® Windows® 7 or Microsoft® Windows® 8
- Proficient in using AutoCAD or have attended [AutoCAD Essentials](#) (Click for More)

Available Exams and Certifications

- [Autodesk Certified User](#) (Click for More)
- [Autodesk Certified Professional](#) (Click for More)

Course Accreditations

4 Points (By the South African Institute of Civil Engineers - SAICE)

Course Outline

Product Overview

AutoCAD Civil 3D Workspaces

AutoCAD Civil 3D User Interface

AutoCAD Civil 3D Toolspace

- Prospector Tab
- Settings Tab
- Survey Tab
- Toolbox Tab

AutoCAD Civil 3D Panorama

AutoCAD Civil 3D Templates, Settings, and Styles

- Drawing Settings in Detail
- Styles
- Templates

Lines and Curves

Introduction to Parcels

- ROW Parcel
- Parcel Style Display Order

Survey Workflow Overview

Introduction to the Survey Toolspace

The Survey Database

Survey Networks

Survey Figures

- Drawing Settings
- Figure Styles
- Figure Prefix Database

Importing a Field Book

Working with Figures

Figure Prefixes

Filtering a Survey Database

Points Overview

Point Label Styles

- Information Tab
- General Tab
- Layout Tab
- Dragged State Tab

Surface Process

- Surface Properties
- Surface Part I

Contour Data

- Weeding Factors
- Contour Issues
- Minimizing Flat Triangle Strategies

Other Surface Data

- DEM Files
- Drawing Objects
- Point Files
- Point Groups
- Point Survey Queries
- Figure Survey Queries

Surface Part II

Breaklines and Boundaries

- Breaklines

Surface Analysis Tools

- Viewing a Surface in 3D
- Quick Profile
- Surface Part III

Surface Editing

- Line Edits
- Point Edits
- Simplify Surface
- Smooth Contours
- Smooth Surface
- Copy Surface
- Surface Paste
- Raise/Lower Surface

Autodesk Vault Overview

- Key Terms
- Vault Architecture

Profiles Overview

- Repositioning and Deleting Profile Views

Create Profiles from Surface

Create a Profile View Style

Create Profile View Wizard

Finished Ground Profiles

Create and Edit Profiles

- Transparent Commands
- Assigning Profile Band Elevations
- Profile Segment Types
- Profile Labels
- Additional Practice

Assembly Overview

- Assemblies
- Subassemblies

Modifying Assemblies

- Attaching Subassemblies
- Detaching Subassemblies
- Copying Assemblies
- Mirroring Assemblies
- Select Similar Subassemblies
- Sharing Assemblies
- Getting More Information on Subassemblies

Modifying AutoCAD Civil 3D Grading

- Grading Styles
- Feature Line Labels
- Grading Criteria
- Grading Criteria Set
- Grading Volumes

Pipes Overview

Pipes Configuration

Creating Networks from Objects

The Network Layout Toolbar

Pressure Pipe Networks

Network Editing

- Pipe (and Structure) Properties
- Swap Part
- Connect/Disconnect From Part

Annotating Pipe Networks

- Pipe Networks in Sections
- Pipe Network Reports and Tables

Plan Production Object Edits

- Name
- Description
- Object style
- View Frame Geometry Properties Edits
- Match Line Geometry Properties Edits

Creating Sheets