

Course Description and Outlines

AutoCAD Civil 3D Diploma

Civil Engineering



Course Description

AutoCAD Civil 3D software, the building information modeling (BIM) solution for civil engineering, helps project teams deliver higher-quality transportation, land development, and environmental projects faster. Explore design ideas and analyze what-if scenarios to help optimize performance before projects are built.

Course Target

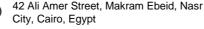
The trainees will be armed with the background and knowledge to apply AutoCAD Civil 3D. Trainees will learn how to create, edit and modify Civil 3D design objects, add annotation, obtain information and import/export and use Civil 3D data in other applications.

Course Duration

14 Sessions x 3 Hours per Session = 42 Total Hours

Attending the Course

- The course includes workshops and in-session applications for every set of points covered.
- Each trainee will have a chance to apply his new skills on actual project supervised by the instructor.
- The location is fully equipped with high end computers so you won't have to bring your laptop.









Course Outlines

Introduction

The AutoCAD Civil 3D Interface Product Overview and Interface Workspace and Toolspace Modify **Drawing Settings Viewport Scaling** and Text Size Templates, Settings & Styles

Points Overview

Creating Points Description Key Sets Point Groups Reviewing & Editing Points Point Reports

Introduction to Surfaces

Surface Creation Process Surface Properties & Surface Data **Breaklines & Boundaries** Surface Editing & Analysis Surface Labels **Volume Calculations** Analysis Display Point Cloud Surface Extration

Parcels

Lines & Curves Introduction to Parcels Creating, Editing & Renumbering Parcels Parcel Reports, Labels & Tables

Grading

Grading Overview & Grading Tools Feature Lines Modifying Grading

Survey

Working with the Survey Tools - Overview Working with Survey Databases Creating a Figure Prefix Database Setting up Line Work Code Sets Importing Point Files and Field books Coordinate System & Convert between them Travers Adjustment

Alignments

Roadway Design Overview AutoCAD Civil 3D Sites Introduction to Alignments Alignment Layout Tools Alignment Properties, Labels and Tables

Profiles

Profile View Styles **Surface Profiles** Create Profile Views & Editing Finished Ground Profiles

Corridors

Assemblies Creating a Corridor Corridor Surfaces & Visualization Corridor Section Review & Edit

Cross Sections

Create and edit sample lines Modify The Sample Line Group Properties Adding Additional Section Data Create section views from sample lines Edit section views Style Create multiple section views









Pipe Networks

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

3 Leg and 4 Leg intersection

Offset parameters Curb return parameters Curb return profile parameters Corridor regions

Full clover leaf

Create polylines for Interchange
Create Interchange
Geometry Details Tap
Create alignment for loop and ramp
Create profiles for loop and ramp
Determine fixed point
Determine values for acceleration and
deceleration lane
Create corridors for four clover leaf
Set Surface





