



AUTODESK/AUTOCAD TRAINING

Autodesk Civil 3d Professional Training Course

Master Autodesk Civil 3D to design and analyze civil engineering projects. Gain skills in site design, road layouts, and quantity take-offs.

DURATION

Flexible

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

The Autodesk Civil 3D Professional Training Course is meticulously crafted for civil engineering, surveying, and land development professionals seeking to master the industry's leading Building Information Modeling (BIM) software for infrastructure design. This intermediate-level course dives deep into Civil 3D's dynamic features, enabling participants to transform raw data into intelligent, constructible 3D models. You will learn to efficiently design, analyze, and document complex projects, ranging from intricate road networks and highway interchanges to comprehensive land development sites and utility systems.

Participants will gain hands-on expertise in leveraging Civil 3D's powerful tools for terrain modeling, corridor design, pipe network creation, grading, and quantity take-offs. The curriculum emphasizes practical application, ensuring you can apply advanced functionalities to real-world scenarios, optimize design workflows, and collaborate effectively within a project team. Mastering Civil 3D enhances productivity, reduces errors, and improves project visualization, positioning you as a highly skilled professional capable of leading and executing modern infrastructure projects with precision and efficiency. This certification will significantly boost your employability and career progression within the dynamic East African construction and engineering sector.

Level	Intermediate
Vendor	Autodesk/AutoCAD

COURSE CURRICULUM

01 Module 1: Introduction to Civil 3D & Project Setup

- Understanding BIM for Infrastructure and Civil 3D Workflows
- Navigating the Civil 3D Interface and Workspace Customization
- Setting Up Civil 3D Projects: Templates, Styles, and Settings
- Working with AutoCAD Objects within Civil 3D
- Introduction to Data Shortcuts for Collaborative Projects

02 Module 2: Survey Data & Digital Terrain Modeling

- Importing and Managing Survey Data (Points, Figures, Field Books)
- Creating and Editing Point Groups and Description Keys
- Generating Digital Terrain Models (DTMs) from various data sources
- Analyzing Surfaces: Contours, Elevations, Slopes, and Watersheds
- Performing Surface Volume Calculations and Earthwork Analysis

03 Module 3: Horizontal & Vertical Alignment Design

- Designing Horizontal Alignments for Roads, Railways, and Channels
- Applying Design Criteria to Alignments (Speed, Superelevation)
- Creating Surface Profiles and Layout Profiles
- Designing Vertical Profiles with PI and PVI methods
- Applying Design Criteria to Profiles and Vertical Curve Design

04 Module 4: Corridor Modeling & Cross Sections

- Understanding Assemblies and Subassemblies for Corridor Design
- Building Dynamic Corridors for Roads, Site Grading, and Railways
- Targeting Surfaces, Alignments, and Profiles in Corridors
- Creating Sample Lines and Generating Cross Section Views

- Editing Corridor Regions, Frequencies, and Applying Superelevation

05 Module 5: Pipe Networks & Quantity Take-Offs

- Designing Gravity Pipe Networks (Storm Sewers, Sanitary Sewers)
- Creating Pressure Pipe Networks and Utility Crossings
- Editing Network Objects in Plan, Profile, and Section Views
- Performing Interference Checks and Network Analysis
- Generating Material Quantities, Earthwork Volumes, and Reports

06 Module 6: Grading, Parcels & Production Tools

- Creating Grading Objects and Feature Lines
- Automated Site Grading using Grading Groups and Criteria
- Parcel Creation, Layout, and Property Boundary Management
- Generating Plan Production Sheets: Plan, Profile, and Section Sheets
- Annotating, Labeling, and Plotting Civil 3D Drawings

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Civil Infrastructure Design Engineer**
- > **Land Development CAD Specialist**
- > **Roads and Highways Design Technologist**

FREQUENTLY ASKED QUESTIONS

Q: What specific types of infrastructure projects will I be able to design and analyze after completing this professional Civil 3D course?

Upon successful completion, you will be proficient in designing and analyzing a wide range of civil infrastructure projects including complex road networks, detailed land development sites, stormwater management systems, sanitary sewer layouts, and pressure pipeline designs. You'll gain the skills to create intelligent models for highways, subdivisions, utility networks, and grading plans, ready for real-world application.

Q: Are there any prerequisites or prior software knowledge recommended before enrolling in the Autodesk Civil 3D Professional Training Course?

While this is a professional-level course, a foundational understanding of basic AutoCAD functionalities and general civil engineering principles is highly recommended. Familiarity with CAD environments and concepts like coordinate systems, layers, and basic drafting commands will allow you to maximize your learning experience and effectively grasp the advanced Civil 3D concepts covered.

Q: How does this course enhance my career prospects in the East African civil engineering and construction industry?

This Autodesk Civil 3D Professional Training Course is meticulously designed to equip you with industry-leading skills that are in high demand across East Africa. Proficiency in Civil 3D enables you to contribute to BIM-centric projects, streamline design workflows, and improve project efficiency. This directly translates to enhanced employability for roles requiring advanced infrastructure design, land surveying, and project management capabilities within government agencies, private

consulting firms, and construction companies operating in the region.

ABOUT COMPUTER PRIDE



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With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

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Take the next step in your technology career.

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