

GIS for Civil 3D Project

Target Audience

This course is designed for civil engineers, surveyors, GIS professionals, CAD technicians, infrastructure designers, BIM coordinators, and engineering consultants who use Autodesk Civil 3D for infrastructure projects. It is also suitable for professionals seeking to integrate GIS data into Civil 3D and InfraWorks workflows for planning, design, and data management.

Course Objective

The objective of this course is to provide participants with the knowledge and practical skills required to integrate Geographic Information System (GIS) data into Autodesk Civil 3D projects. Participants will learn to connect Civil 3D with ArcGIS, manage external GIS datasets, import and export geospatial data, utilize InfraWorks workflows, and efficiently manage GIS data throughout the project lifecycle.

Course Outcome

- Understand GIS workflows within Autodesk Civil 3D projects.
 - Connect Civil 3D with ArcGIS using Autodesk Connector for ArcGIS.
 - Import and manage raster, vector, and database-based GIS data.
 - Utilize InfraWorks Model Builder for project creation and data integration.
 - Manage external GIS datasets using Autodesk Map tools.
 - Export project data using IMX, FGDB, Save As, and Export workflows.
 - Publish Civil 3D data to ArcGIS for collaboration.
 - Apply industry-standard GIS data management workflows in infrastructure projects.
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Course Outline

The course comprises **8 hours** of theory and hands-on lab sessions. It includes practical exercises to reinforce learning and provide hands-on experience with GIS integration, data management, and Civil 3D project workflows.



Course Content

GIS for Civil 3D Projects

- Overview of GIS integration in Civil 3D
- GIS workflows for infrastructure projects
- Benefits of integrating GIS and Civil 3D

Autodesk Connector for ArcGIS

- Civil 3D Autodesk Connector to ArcGIS
- Autodesk Connector for ArcGIS
- Finding GIS data
- Working with metadata
- Using imagery services

InfraWorks Data Integration

- Adding data to InfraWorks
- Model Builder
- Adding data from InfraWorks
- Exporting IMX or FGDB
- Publishing to ArcGIS

External GIS Data Management

- Understanding external data sources
- Adding data to the project
- Loading data using the Connect Tool
- Loading raster and SHP data
- Loading raster data
- Loading SDF data
- Loading data from databases

GIS Data Import Tools

- Loading data using the Map Explorer tab
- Using the Map Import tool
- Managing imported GIS datasets

Data Output and Export Methods

- Data output methods
- Data output using the Save As option
- Data output using the Export option

