

# Introduction to 3D Analyst

*1-Day Course*

## Overview

The 3D Analyst class will introduce students to the 3D Analyst Tool and its associated 3D visualization through the ArcScene application. Conversion of 2D to 3D features will be discussed as will the editing and digitizing of 3D features and the display of 3D feature data. Creation and editing of TINs and Terrains will be explained. The analysis capabilities of 3D Analyst tool box components such as steepest paths, profile graphs, line of sight, volumetrics, surface length, and surface spot will be explored. A series of exercises using a variety of different 3D data will provide students with an opportunity to utilize concepts discussed during the lectures.

## Audience

This course is for those who are already comfortable with the basics of ArcGIS, but who want to learn more about analysis and raster creation with 3D Analyst.

## Topics covered

- Components of 3D Analyst
- Types of 3D Data
- Functional Surfaces
- Working in ArcScene
- Sources of Z-Values
- Creating New 3D Feature Classes
- Converting 2D Features to 3D
- Adjusting Z-values
- Editing and Digitizing 3D Features
- 3D Graphics
- Displaying 3D Feature Data
- Extrusion
- 3D Layer Files
- TINs: Creating, Editing, Symbology, Conversion
- Terrains: Creating & Displaying
- Steepest Paths
- Profile Graphs
- Line of Sight
- Surface Area and Volume
- Surface Length
- Surface Spot

## **Prerequisites and recommendations**

Students should be familiar with the basic use of ArcMap, including the topics covered in either the **Fundamentals of ArcGIS** or **ArcGIS Desktop I** classes.