

# Intermediate ArcGIS Pro for Transportation

*Course Length: 3 Days  
ArcGIS Version: Pro 2.x*

## Overview

ArcGIS Pro can do so much more than simple map display and navigation. It has many tools for answering questions with the data you already have. Take your ArcGIS skills to a new level by learning to manage your data. Create new files and modify existing ones. Combine existing data into new datasets to show information in one table. Discover the immense functionality available in ArcGIS Pro Toolboxes. Take your map layouts to the next level with enhanced labels and new techniques for layouts.

## Audience

This course is for those in the transportation industry who already know the basics of ArcGIS and want to expand their skills with the software and GIS in general.

## Topics Covered

### Day 1

- GIS Data Sources – Where does all the data come from? Who creates it? How can you access it? (Your Company’s Data; Connecting to Datasets; GIS Data on the Web; Sharing Maps and Data)
- Understanding Coordinates – Understand the importance of making sure your data is in the right place. See real-life examples of issues that inaccurate spatial locations can cause. (Coordinate Issues; Geographic Coordinate Systems; Projected Coordinate Systems; Coordinates in ArcGIS)
- Bringing Data into ArcGIS – Take paper maps and place them into correct spatial locations, import or export data from Google Earth, and more. (Importing Data; Georeferencing an Image)
- Joins and Relates – Learn about different types of tables and relationships. Connect a county dataset to a spreadsheet of demographic information that has no coordinates. (Using Tables in ArcGIS Pro; Table Relationships; Attribute Joins; Relates; Spatial Joins)

### Day 2

- Creating GIS Data – Understand the different data types and learn how to create your own GIS data files. (GIS Data Types and File Creation; GIS Database Design)
- Editing Data – A review of basic editing. Create your own GIS data and modify existing data. (Editing Review; Feature Construction; Modifying Features)

- Group Templates and Topology – Learn how to prevent digitizing errors with map topology and make your editing and data creation more efficient with custom feature templates. (Map Topology; Group Templates)

### Day 3

- 3D Visualization in ArcGIS – Understanding the essentials of 3D data and the different ways of displaying data on a surface. (Scenes in Pro; Scene Conversion; 3D Data and Layers; Extrusion; Extras and Sharing)
- Analysis in ArcGIS – Learn how to solve problems in GIS. Build right-of-way polygons, find potential flood zones, and combine datasets to showcase construction zones with potential hazards. (Geoprocessing Tools; Credit-Based Analysis Tools; The Geoprocessing Environment)
- Labeling Features – Display important information about your features with a variety of techniques. Adjust the appearance and placement of labels for maximum effect, while still emphasizing what is most important. (Labeling Basics; Label Symbols and Label Positions; Label Expressions; Label Classes)
- Making a Map Series – What is a map series? Why is a map series useful? How do you create one? How can you share it? (Making a Map Series; Export to PDF)

## **Format**

In-person instruction with hands-on practice, and course materials you can keep.

## **Prerequisites and Recommendations**

Attendees should have knowledge of Microsoft Windows®, Microsoft Office®, and be familiar with the basic use of ArcGIS, including the topics covered in either the **Introduction to ArcGIS Pro for Transportation** or **Introduction to ArcGIS Pro** classes.