

ArcGIS Pro Essentials Series: Part II

Course Length: 3 days

ArcGIS Version: Pro 3.x

App: ArcGIS Pro

Overview

You already know how to navigate ArcGIS Pro. This course takes you to the next level, focused on the data skills that determine how much you can actually do with it.

Over three days, you will build the capabilities that separate a proficient GIS user from a productive one: finding and connecting to authoritative data sources, bringing external data formats into ArcGIS, linking non-spatial tables to your maps, and building and maintaining your organization's own GIS data from scratch. You will learn how coordinate systems work and why getting them wrong can cost your organization significant time and money. You will also develop editing and data quality skills, including topology, so the data you create is accurate and maintainable. The course closes with advanced visualization and presentation techniques: 3D scenes, geoprocessing analysis, dynamic labeling, and multi-page map series. By the end, you will have the tools to manage the full GIS data lifecycle, from acquisition to analysis to polished output.

Audience

This course is designed for GIS users who are comfortable with the ArcGIS Pro fundamentals covered in the Essentials Series Part I and are ready to work more independently with data: finding it, creating it, maintaining it, and presenting it effectively. It is well-suited for GIS technicians, analysts, planners, and engineers who need to expand beyond basic mapping into real data management and spatial analysis workflows.

Topics Covered

Day 1

- GIS Data Sources – Understand where GIS data comes from, who creates it, and how to access it — so you can find authoritative, usable data instead of starting from scratch. (GIS Data; GIS Data on the Web; Sharing Maps and Data)
- Understanding Coordinates – Learn how coordinate systems work and why they matter, using real-world examples of what goes wrong, including costly field errors, when spatial locations are inaccurate. (Coordinate Issues; Geographic Coordinate Systems; Projected Coordinate Systems; Coordinates in ArcGIS)
- Bringing Data Into ArcGIS and Publishing Out of ArcGIS – Expand what you can work with by importing coordinates, CAD drawings, KML files, photos, and scanned paper maps into ArcGIS, and exporting your work back out to other formats. (Importing Data; Georeferencing an Image)

- Joins and Relates – Unlock the full value of your spatial data by linking it to external tables and spreadsheets, connecting parcels to ownership records, assets to inspection histories, and more, without needing a shared coordinate system. (Using Tables in ArcGIS Pro; Table Relationships; Attribute Joins; Relates; Spatial Joins)

Day 2

- Creating GIS Data – Build your organization's own GIS data from the ground up, creating geodatabases, feature classes, and datasets structured to support your specific workflows. (GIS Data)
- Editing Data – Keep your GIS data current and accurate by adding new features, modifying geometries, and updating attributes as conditions on the ground change. (Editing Basics; Feature Construction; Modifying Features)
- Group Templates and Topology – Enforce data quality rules that prevent gaps, slivers, and overlaps between features so shared boundaries stay accurate and edits to adjacent features update correctly. (Map Topology; Group Templates)

Day 3

- 3D Visualization in ArcGIS – Move beyond flat maps by displaying your data in global and local 3D scenes, draping layers over terrain surfaces, extruding features by attribute, and navigating your data in three dimensions. (Scenes in Pro; Scene Conversion; 3D Data and Layers; Extrusion)
- Geoprocessing Tools – Apply a broad set of analysis tools to solve real spatial problems: building buffers, combining datasets with Intersect and Union, identifying flood zones, and running tools across selected or filtered feature sets. (Geoprocessing Tools; Credit-Based Analysis Tools; The Geoprocessing Environment)
- Labeling Features – Control exactly how your map communicates by configuring label styles, expressions, placement rules, and label classes, ensuring the right information appears in the right place at the right scale. (Label Basics; Label Symbols and Label Positions; Label Expressions; Label Classes)
- Making a Map Series – Create a single layout template that automatically generates a complete set of map pages, one for each county, lease, district, or zone, and export the full series to PDF. (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® and be familiar with the basic use of ArcGIS, including the topics covered in the **ArcGIS Essentials Series: Part I** class.