

Intermediate ArcGIS Pro for Petroleum

Course Length: 3 days
ArcGIS Version: Pro 3.x
App: ArcGIS Pro

Overview

One of the things that makes ArcGIS so useful is the tremendous amount of data available to map and analyze. In this course, you will learn to find, connect to, create, manage, and analyze that data. You will learn to search government sites for available oil and gas related GIS data, import non-GIS data formats, and to connect your maps to non-spatial spreadsheets, database tables, and other file formats. For example, linking lease polygons to scanned legal descriptions and attaching photographs to environmental issues near a production facility.

You will also learn to create, maintain, and manipulate your organizations internal data to keep the data relevant, up-to-date, and useful.

Finally, this course teaches you how to present your GIS data, by focusing on map labeling techniques and layout skills.

Audience

Those working in the petroleum industry who are comfortable with the basics of ArcGIS Pro and want to learn more about how to find, connect to, create, maintain, and display GIS data.

Topics Covered

Day 1

- GIS Data Sources – Where does all the data come from? Who creates it? How can you access it? (GIS Data; 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 inaccurate spatial locations can cause. (Coordinate Issues; Geographic Coordinate Systems; Projected Coordinate Systems; Coordinates in ArcGIS)
- Bringing Data Into ArcGIS and Publishing Out of 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 – Connect a parcel dataset to a spreadsheet of owner information that has no coordinates. (Using Tables in ArcGIS Pro; Table Relationships; Attribute Joins; Relates; Spatial Joins)

Day 2

- Creating GIS Data – Create your own GIS data files. (GIS Data)

- Editing Data – Create your own GIS data and make changes to existing data. (Editing Basics; Feature Construction; Modifying Features)
- Group Templates and Topology – Employ some data QC techniques by ensuring that the boundaries and intersections between features that touch are accurate. (Map Topology; Group Templates)

Day 3

- 3D Visualization in ArcGIS – Understanding the essentials of 3D data, displaying data on a surface and at a fixed height. (Scenes in Pro; Scene Conversion; 3D Data and Layers; Extrusion)
- Analysis in ArcGIS – Run analysis tools to answer questions. For example, build right-of-way polygons around pipelines, explore the production of wells in a lease, and combine datasets to explore environmental and socioeconomic issues. (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. (Label Basics; Label Symbols and Label Positions; Label Expressions; Label Classes)
- Making a Map Series – Learn additional techniques for making a clean map layout. Clip the data frame to the outline of a layer. Add a grid to show coordinates. Show how different data frames relate to one another. Create a set of multiple maps for a whole area, such as one for each lease. (Making a Map Series; Export to PDF)

Format

In-person or online 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 Pro, including the topics covered in the **Introduction to ArcGIS Pro for Petroleum** class.