

ArcGIS Pro Essentials for Petroleum

Course Length: 2 days

ArcGIS Version: Pro 3.x

App: ArcGIS Pro

Series: Part I

Overview

Whether you are migrating from ArcMap or brand-new to ArcGIS Pro, this course is your starting point.

This immersive two-day course builds a practical foundation in ArcGIS Pro using real-world petroleum datasets and scenarios. Participants move from basic map navigation into creating professional-quality maps, optimizing data display, and performing essential spatial analysis to support exploration, production, and regulatory decisions. Through structured lectures and hands-on exercises, attendees learn to work confidently with GIS data, manage projects and broken data links, design polished layouts, and apply core geoprocessing tools to solve upstream and midstream mapping challenges. By course end, participants leave with the skills to leverage ArcGIS Pro as a production-ready decision-support tool for petroleum workflows — not just a mapping application.

Audience

This course is designed for petroleum professionals who need to visualize and analyze spatial data in ArcGIS Pro, including GIS technicians, engineers, geoscientists, land and regulatory staff, analysts, and managers supporting exploration, production, and asset stewardship. It is ideal for those who are new to ArcGIS Pro or transitioning from ArcMap and want a structured introduction grounded in real petroleum workflows..

Topics Covered

Day 1

- Overview of GIS – Establish a clear understanding of GIS concepts and spatial problem-solving so you can frame your petroleum data within the broader ArcGIS platform from day one. (What is ArcGIS?; Getting Started in a Project)
- ArcGIS Pro Basics – Gain the hands-on confidence to navigate the ArcGIS Pro interface, manage maps and layers, and access the data behind your visualizations — the core competency everything else builds on. (Parts of the Interface; Map Tools; Layer Tools)
- Using Symbolology to Analyze Data – Move beyond default rendering to produce maps that communicate clearly and support data-driven decisions across exploration, production, and regulatory workflows. (Applying Symbolology in ArcGIS Pro; Symbolology Choices; Layer Files)

- Asking Questions of Your Data – Query your petroleum datasets by attribute and spatial relationship so you can isolate, investigate, and act on exactly the features that matter to your analysis. (Making Selections; Interactive Selection; Select by Attribute; Using the Selection)

Day 2

- Understanding GIS Data – Know which data formats to use and where to find them, including file geodatabases, shapefiles, and Portal-hosted datasets, so data access never slows down your field, operations, or regulatory work. (GIS Data Types; Accessing Portal Data)
- Adding Data and Managing a Project – Keep your projects organized and functional by managing data sources, repairing broken links, and bringing in the data types your petroleum workflows require. (Understanding the ArcGIS Pro Project; Finding and Adding Data to a Map)
- Designing Your Map for Presentation – Produce professional, print-ready and shareable map layouts that meet the standards your organization, partners, and regulators expect. (Working with Map Frames; Working with Elements; Sharing Layouts)
- Geoprocessing – Apply ArcGIS geoprocessing tools to manipulate, manage, and analyze your spatial data, turning raw upstream and midstream datasets into actionable results. (Geographic Analysis; Running Tools)

Format

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

Prerequisites and Recommendations

Attendees should be comfortable working on a computer and navigating the folder structure in Microsoft Windows®.