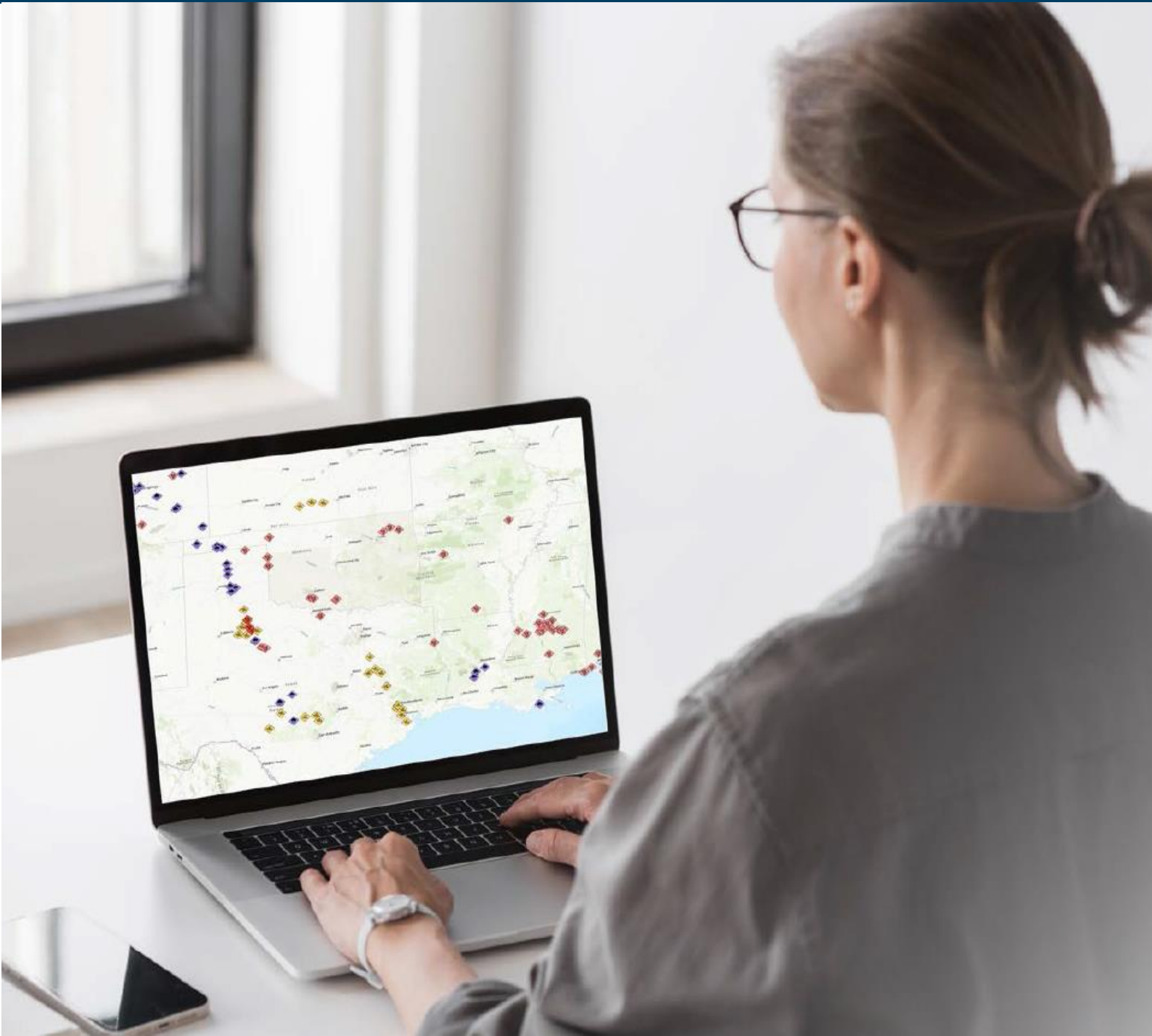


# Training Course Catalog

Discover the latest instructor-led courses and training solutions using ArcGIS software



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## Training Overview

Esri NA offers instructor-led and self-paced training options that teach Esri software skills and best practices, which in turn enable you to:

- Increase productivity and efficiency in GIS operations, allowing your staff to accomplish more with fewer resources.
- Prevent costly mistakes in new GIS implementations and system updates.
- Recognize opportunities for GIS to help improve efficiency, build your customer base, stay ahead of your competition, and increase revenue.

## Esri NA Training Formats

Esri NA offers a range of training options for both new and experienced GIS users, in both instructor-led and self-paced formats. This allows you to select training solutions that match the preferences of your organization and your individual users.

### Instructor-Led Classroom Training

Instructor-led classroom Training teaches students best practices and recommended workflows for using Esri software products and related technologies.

These courses emphasize class discussions, breakout group activities, and hands-on exercises, in turn promoting peer-to-peer learning and the development of technical skills that can be applied immediately on the job. Students receive individual attention from the instructor, and everyone is

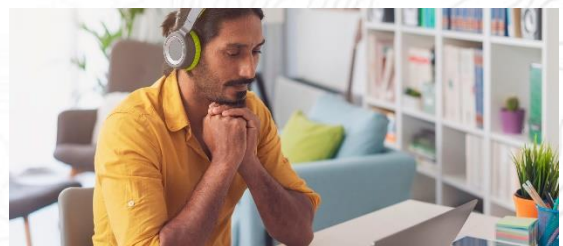


encouraged to ask questions and participate in class discussions. This is offered at Esri NA training center which maintains the policy of one person per computer at our facilities, and students work with the most recent versions of our software.

### Instructor-Led Virtual Training

Instructor –Led Virtual Training is a live and interactive format, delivered in real time over the internet and allows you to learn and apply ArcGIS best practices from your own desktop where you participate in small group activities in virtual breakout rooms, including writing on group whiteboards, chatting, polling and group discussions.

Esri NA delivers a real-time online classis led by certified Instructor to keep you staying safe and saving traveling costs where you will earn the value from hands-on, participating, online collaborating, direct discussion with the instructor with the online training room requirements.<sup>1</sup>



<sup>1</sup>Please check “ [Online training room Requirements](#)” document

## **On Site Training**

Onsite training enables organizations to run any of our courses at your location reducing additional students' efforts of traveling. Esri NA provides you with Esri certified instructor, training materials and pre-loaded Esri software and training data to your computers or laptops to be used throughout the course. Training is provided in your training room equipped with a projector and Wi-Fi access and other training room requirements.<sup>2</sup>



## **One to One Training**

One to One training is a specific tailored training customized to match your needs to maximize your GIS skills by ensuring that the training is highly focused enabling you to meet your learning goals effectively. One to One Training offered by Esri NA helps to provide structure, immediate results and variety of learning approaches, applicable to your specific needs by increasing knowledge areas specific to your work.



## **Online Training Support**

Through Esri NA Online Training Support, you can take the advantage of having Learning Support when you need it. By purchasing a package of different learning calls, our certified instructors will provide you with advice and guidance around your specific areas of your needs. This is delivered remotely via different online platforms in an hour-based session, which is considered the ideal way to support new workflows or the use of new tools.



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<sup>2</sup> Please check "[Training Room Requirements](#)" document

## Why Training from Esri NA?

Esri NA believes that training is essential to maximize your investment in GIS technology. We strive to provide the best training in the industry so your staff can use our software to their fullest advantage. We accomplish this goal in three ways: by committing ourselves to quality, by giving you the training options you need, and by developing new and innovative training techniques.

All Esri instructors have achieved Esri technical certification as well as facilitation training and certification for information technology instructors like CompTIA CTT+. All these skills cover core instructional skills including preparation, presentation, communication, facilitation, and evaluation in both traditional and online classrooms.

### Esri NA is Committed to Quality

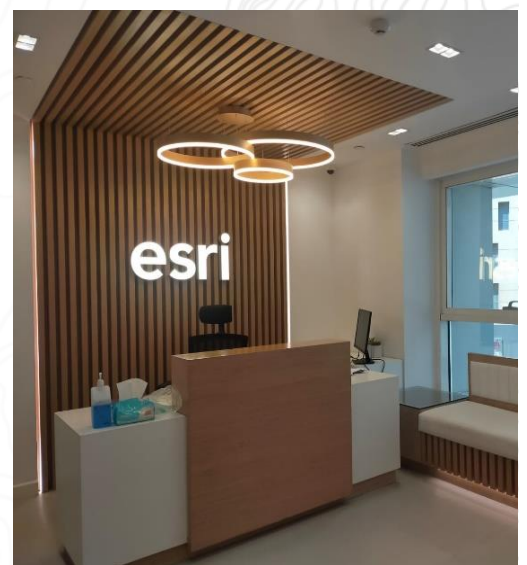
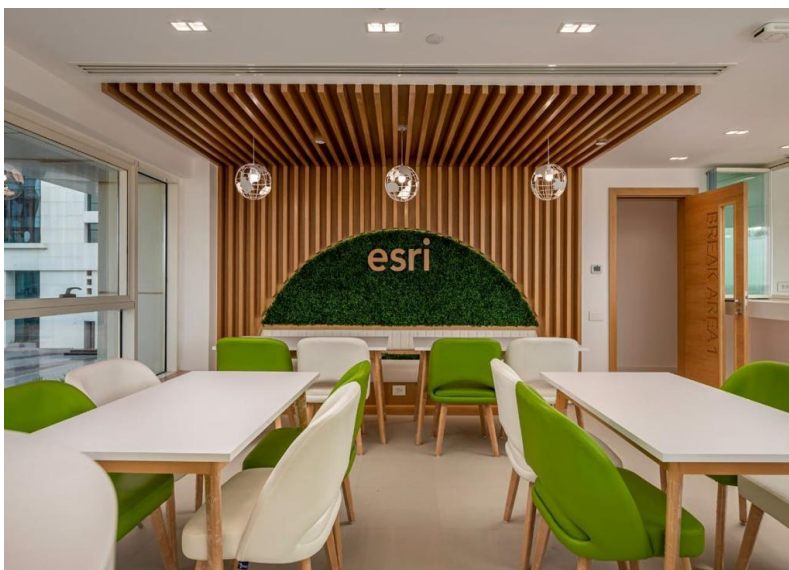
All Esri courses, both instructor-led and self-paced, undergo a rigorous design, development, and testing process. Subject matter experts, education specialists, and instructional designers work together to develop and test each course. Esri training courses are designed to teach knowledge and skills that students can immediately apply to their own work.

### Esri NA gives You Options

Because training needs vary among both organizations and users, and because every student has an individual learning style, Esri NA provides a range of training options. From traditional classroom instruction to self-study workbooks, Esri NA offers you the support you need to realize your training goals.

### Esri NA Training Is Innovative

Esri NA closely monitors new training innovations and technology to offer high-quality, engaging solutions to our users. Our goal is to develop new courses, updated training materials, and inventive delivery options to help GIS professionals learn in creative and cost-effective ways.



## Track: Getting Started

### 1. Introduction to GIS using ArcGIS

#### DURATION

---

Three days

#### OVERVIEW

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Learn fundamental concepts that underlie GIS technology and geographic data. In this course, you will gain experience using GIS maps to visualize and explore real-world features; analyze data to answer questions and create new information; and share maps, data, and other resources so they can be easily accessed throughout your organization.

#### WHO SHOULD ATTEND

---

Individuals with limited or no previous GIS or ArcGIS experience

#### GOALS

---

After completing this course, you will be able to

- Identify data to support a mapping project.
- Create a map, add data to it, and symbolize map features to support the map's purpose.
- Share data, maps, and other content to an organizational portal.
- Analyze map features within an area of interest.

#### PREREQUISITES

---

Experience with Windows-based software for basic file management and browsing.

## 2. ArcGIS Pro: Essential Workflows

### DURATION

---

Four days

### OVERVIEW

---

Extend your foundational GIS knowledge, get comfortable with the ArcGIS Pro application, and explore some of the most common GIS workflows. This course introduces techniques and general best practices to map, manage, analyze, and share data and other GIS resources.

### WHO SHOULD ATTEND

---

GIS staff and individuals with introductory-level knowledge of GIS concepts.

### GOALS

---

After completing this course, you will be able to

- Organize, create, and edit geographic data.
- Manage, symbolize, and label map layers.
- Analyze and model GIS data to solve spatial problems.
- Share maps and analysis results.

### PREREQUISITES

---

Completion of Introduction to GIS Using ArcGIS

## 3. Migrating from ArcMap to ArcGIS Pro

### DURATION

---

Three days

### OVERVIEW

---

This course prepares experienced ArcMap users to be productive right away. Learn essential ArcGIS Pro terminology and concepts and how to efficiently complete a variety of tasks related to mapping, editing, analyzing, and sharing geospatial data and resources.

### WHO SHOULD ATTEND

---

Experienced ArcMap users who need to start working with ArcGIS Pro

### GOALS

---

After completing this course, you will be able to

- Create an ArcGIS Pro project and import map documents and 3D scenes.
- Create and modify map symbology and layouts.
- Import a geoprocessing model and identify potential migration issues.
- Share geospatial resources to an ArcGIS Online organizational site or on-premises ArcGIS portal.

### PREREQUISITES

---

Great Knowledge of ArcMap.

## 4. ArcGIS Online: Essential Workflows

### DURATION

---

Two days

### OVERVIEW

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This course introduces web maps, apps, and other authoritative content that may be available through your ArcGIS Online organizational site. You will learn how to discover, use, create, and share content that infuses projects with geographic context, additional business intelligence, and visual impact. Course concepts also apply to ArcGIS Enterprise portals.

### WHO SHOULD ATTEND

---

Knowledge workers, managers, and other professionals who have access to an ArcGIS Online organizational site

### GOALS

---

After completing this course, you will be able to

- Find content on an ArcGIS Online organizational site that meets your project needs.
- Create and configure web maps and web apps.
- Use web maps in Microsoft Office applications.
- Share maps and other content on your ArcGIS Online organizational site.

### PREREQUISITES

---

Experience working with Windows-based software for file management and web browsing is required.

### 5. Creating and Editing Data with ArcGIS Pro

#### DURATION

---

Three days

#### OVERVIEW

---

This course teaches best practices to create accurate geographic data and maintain it over time. You will get ample hands-on practice with a variety of ArcGIS Pro tools that streamline the editing process and decrease the potential for errors when updating your GIS database.

#### WHO SHOULD ATTEND

---

GIS technicians, specialists, and other experienced ArcGIS users who create and maintain their organization's geographic data.

#### GOALS

---

After completing this course, you will be able to

- Apply a standard editing workflow to manage updates to geographic data.
- Configure ArcGIS Pro application and project settings to support efficient editing.
- Create, modify, and delete 2D and 3D features and attributes.
- Solve common data alignment issues and maintain spatial relationships among features when editing.

#### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows.

## 6. Introduction to Data Interoperability

### DURATION

---

One day

### OVERVIEW

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The ArcGIS Data Interoperability extension helps GIS professionals quickly convert spatial data to the precise format and data model needed for the task at hand. This course introduces the concepts and terminology of interoperability. You will learn how to use data interoperability extension from ArcGIS Pro to read, import, and export spatial datasets quickly and easily, regardless of data format.

### WHO SHOULD ATTEND

---

GIS professionals who need to perform QA tasks and manipulate spatial data to meet specific structure requirements and specifications.

### GOALS

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After completing this course, you will be able to

- Discuss what data interoperability is and its benefits for accessing and sharing data.
- Introduce Data interoperability functionalities
- Translate different Data formats
- Transform Different Data formats
- Use common attribute & spatial transformers

### PREREQUISITES

---

Completion of Introduction to GIS using ArcGIS.

## 7. Field Data Collection and Management Using ArcGIS

### DURATION

---

Three days

### OVERVIEW

---

Learn how ArcGIS supports a complete field data management workflow—from the office to the field, in the field, and back to the office. You will learn best practices to configure and deploy ArcGIS field-productivity apps to meet your data-collection needs. You will have the opportunity to use your own iOS or Android device to complete some course exercises.

### WHO SHOULD ATTEND

---

GIS professionals and GIS Managers.

### GOALS

---

After completing this course, you will be able to

- Create and configure web maps for map-based data collection and surveys for form-based data collection.
- Efficiently create and manage field workforce assignments.
- Quickly capture real-time field observations.
- Monitor fieldwork in progress using a dashboard.

### PREREQUISITES

---

Completion of Putting ArcGIS to Use Across Your Organization.

## 8. Introducing Data Reviewer for Data Quality

### DURATION

---

One day

### OVERVIEW

---

This course teaches how to use different reviewer techniques for Desktop to manage and automate the quality control review process. After exploring fundamental components of quality control, you will practice techniques to discover and document data quality requirements. You will gain hands-on experience configuring and running automated data checks, then performing a systematic visual review.

### WHO SHOULD ATTEND

---

GIS technicians, spatial data managers, and project managers who need to oversee or perform data-quality checks using ArcGIS Data Reviewer for ArcGIS Pro.

### GOALS

---

After completing this course, you will be able to:

- Document quality requirements.
- Automate data validation.
- Perform a systematic visual review.
- Centrally document and manage data issues.
- Track the entire error lifecycle.

### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows.

## 9. Working with Parcel Data in ArcGIS Pro

### DURATION

---

Four days.

### OVERVIEW

---

This course teaches how to maintain accurate, up-to-date, and authoritative parcel data using the parcel fabric in ArcGIS Pro. You will learn a standard workflow to create a parcel fabric in a file geodatabase, add parcel data to the fabric, and edit parcels to reflect real-world changes. This course assumes familiarity with land-records terminology.

### WHO SHOULD ATTEND

---

GIS technicians, parcel editors, tax mapping professionals, and others who maintain or manage land-records data.

### GOALS

---

After completing this course, you will be able to:

- Configure the parcel fabric environment.
- Edit parcel geometry, measurements, attributes, and labels in a branch versioning environment.
- Track parcel history and lineage to represent land record changes over time.
- Publish a parcel fabric as a feature service to ArcGIS Enterprise so that up-to-date parcel data is available to everyone in your organization who needs it.

### PREREQUISITES

---

Completion of Creating and Editing Data with ArcGIS Pro

## 10. Preparing Data for GIS Applications

### DURATION

---

Three days.

### OVERVIEW

---

When starting a GIS mapping or analysis project, a common challenge is assembling the data needed to answer the question or produce the desired output. The datasets you need may be available but at different accuracy levels or include the required geographic features but lack a key attribute. Many issues may make data unusable as-is. This course explores data-preparation techniques that are relevant for a variety of GIS applications.

### WHO SHOULD ATTEND

---

GIS technicians, spatial data managers or specialists, and project managers who need to gain essential skills to assess data quality, address inconsistencies, and deliver valid results from GIS projects.

### GOALS

---

After completing this course, you will be able to

- Identify the data requirements for a given project and authoritative sources for data acquisition.
- Assess a dataset's spatial, temporal, and temporal accuracy; logical consistency; and completeness to determine whether it meets a project's data quality standards.
- Create metadata to document a dataset's quality so that others can easily assess its appropriateness for their projects.

### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows.

## Track: Cartography and Map Production

### 11. Mapping and Visualizing Data in ArcGIS

#### DURATION

---

Three days.

#### OVERVIEW

---

Learn cartographic techniques and ArcGIS Pro and ArcGIS Online workflows to create and share a variety of professional-quality information products, including print maps, web maps, 3D scenes, animations, and charts.

#### WHO SHOULD ATTEND

---

Cartographers and GIS analysts, specialists, mapping technicians, and others who need to produce maps using ArcGIS software.

#### GOALS

---

After completing this course, you will be able to

- Prepare data for a mapping project.
- Apply symbology and labeling techniques to enhance data visualization on maps and charts.
- Design print map layouts that are appropriate for your data, audience, and purpose and web maps for use in web-based information products.
- Create and share 3D scenes and animations that enable dynamic visualization of data and change over time.

#### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows.

## 12. Creating Stories with ArcGIS

### DURATION

---

Two days.

### OVERVIEW

---

ArcGIS StoryMaps stories have achieved mass appeal as a medium to inform the public, share project results, engage stakeholders, and inspire an audience. This course—for anyone that wants to share information in an interactive, highly engaging manner—teaches the concepts, best practices, and decisions that need to be made when creating and sharing a story using ArcGIS StoryMaps.

### WHO SHOULD ATTEND

---

GIS professionals and other individuals who want to share their work and disseminate information using ArcGIS StoryMaps.

### GOALS

---

After completing this course, you will be able to

- Design a story based on your purpose and audience.
- Add web maps, images, multimedia, and text to create a compelling story.
- Apply a theme to customize and enhance a story's visual appeal.
- Publish and share a story with the public or members of your ArcGIS organization.
- Organize your stories using an ArcGIS StoryMaps collection.

### PREREQUISITES

---

Familiarity with ArcGIS Online will be helpful.

### 13. Spatial Analysis with ArcGIS Pro

#### DURATION

---

Five days

#### OVERVIEW

---

Learn essential concepts and a standard workflow you can apply to any spatial analysis project. You will work with a variety of ArcGIS tools to explore, analyze, and produce reliable information from data. Course exercises use an ArcGIS Pro and ArcGIS 3D Analyst, ArcGIS Spatial Analyst, and ArcGIS Geostatistical Analyst.

#### WHO SHOULD ATTEND

---

Spatial data scientists and analysts who work with analysis in GIS in different industries.

#### GOALS

---

After completing this course, you will be able to

- Prepare data and choose appropriate tools and settings for an analysis.
- Examine features and distribution patterns within an area of interest and identify optimal locations using 2D and 3D analysis tools.
- Quantify spatial patterns using spatial statistics and analyze change over time to identify emerging hot spots.
- Use interpolation and regression analysis to explain why patterns occur and predict how patterns will change.

#### PREREQUISITES

---

- Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro

## 14. Working with ArcGIS Network Analyst

### DURATION

---

Three days.

### OVERVIEW

---

Built around the network dataset, ArcGIS Network Analyst software incorporates an advanced connectivity model to accurately represent real-world multimodal networks. This course teaches how to create network datasets in order to model and analyze transportation networks. You learn how to find the most efficient travel route, find the closest facility, and define service areas based on travel time. The course also teaches how to calculate origin-destination matrices for network locations and perform fleet routing.

### WHO SHOULD ATTEND

---

This course is designed for experienced ArcGIS users who want to perform GIS-based routing and transportation network analysis. Those working in the transportation, logistics, public safety, local government, and business industries may find the course of particular interest.

### GOALS

---

Those completing this course will be able to

- Create network datasets.
- Migrate existing network data sources to ArcGIS network datasets.
- Generate and use turn movements within network datasets.
- Solve routing, closest facility, service area, origin-destination, and vehicle routing problems in a transportation network.
- Perform transportation network analysis using tools and models.

### PREREQUISITES

---

- Completion of ArcGIS Pro: Essential Workflows.
- Completion of Managing Geospatial data in ArcGIS.

## 15. Introduction to ArcGIS Urban

### DURATION

---

Two days.

### OVERVIEW

---

ArcGIS Urban improves planning and decision-making by applying GIS technology to urban planning. The application provides a way to manage your development plans, analyze factors contributing to decisions, and share information with stakeholders. In this course, you will learn about the benefits of ArcGIS Urban and examine the Urban model and how to import data to the model.

It is essential to understand the data type, data schema, and data connection of each one. In this course, you will learn about configuring types data and feature layers into an ArcGIS Urban model.

### WHO SHOULD ATTEND

---

Urban planners who wants to figure out the best way to use ArcGIS urban in applying GIS technology to urban planning.

### GOALS

---

After completing this course, you will be able to

- Describe the benefits of ArcGIS Urban
- Create an ArcGIS Urban model
- Configure types data in ArcGIS Urban.
- Configure layers in ArcGIS Urban.

### PREREQUISITES

---

Completion of Introduction to GIS using ArcGIS

## 16. Introduction to ArcGIS Indoors

### DURATION

---

Four days.

### OVERVIEW

---

This course introduces key workflows to successfully deploy ArcGIS Indoors. Learn how to create and maintain a complete system for indoor mapping and data management that lets your organization share smart building maps. Get hands-on practice with tools and workflows used to integrate CAD, BIM, and GIS data; create floor-aware data and layers to support indoor navigation; and manage indoor data over time to streamline workspace planning and facilities management.

### WHO SHOULD ATTEND

---

Business Owners, Office workers and Field workers.

### GOALS

---

After completing this course, you will be able to

- Design a story based on your purpose and audience.
- Add web maps, images, multimedia, and text to create a compelling, cohesive narrative.
- Apply a design theme to customize and enhance a story's visual appeal.
- Publish and share a story with the public or members of your ArcGIS organization.

### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro and ArcGIS Indoors Basics or equivalent knowledge.

## 17. Working with Utility Networks in ArcGIS

### DURATION

---

Four days.

### OVERVIEW

---

ArcGIS Utility Network Management, an extension to ArcGIS Enterprise, provides robust tools to model, visualize, edit, and analyze complex utility networks. This course—for GIS professionals who edit and analyze electric, gas, water, or telecommunications networks—introduces the utility network model in the enterprise geodatabase. Learn about the latest capabilities that organizations can leverage to better manage network assets, minimize network disruptions, and quickly respond to outages.

### WHO SHOULD ATTEND

---

GIS professionals who edit and analyze electric, gas, water, or telecommunications networks.

### GOALS

---

After completing this course, you will be able to

- Deploy a utility network solution and add rules to accurately model connectivity and data relationships.
- Apply a standard workflow to create and edit network features and components while maintaining data integrity.
- Perform network tracing to identify the source of a disruption and impacted customers.
- Create and share a diagram to dynamically visualize the network.

### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro

## 18. Configuring Utility Networks in ArcGIS

### DURATION

---

Four days.

### OVERVIEW

---

This course prepares GIS administrators, technical leads, and others to deploy the ArcGIS utility network to realistically model and manage their organization's assets and infrastructure. Learn how to define the network schema and properties and load data into a utility network. Attendees can complete course exercises using electric, gas, or water utility scenarios.

### WHO SHOULD ATTEND

---

GIS administrators, technical leads, and others who need to configure and deploy ArcGIS Utility Network.

### GOALS

---

After completing this course, you will be able to

- Build a utility network using geoprocessing tools.
- Choose a method to migrate existing features into a utility network.
- Configure customizations to enhance network diagrams and tracing and editing workflows.
- Manage utility network schema changes and release updates over time.

### PREREQUISITES

---

Completion of Working with Utility Networks in ArcGIS

## 19. Location Analytics Using ArcGIS Insights

### DURATION

---

Three days.

### OVERVIEW

---

Build skills to quickly identify data patterns and relationships using drag-and-drop functionality, powerful analysis tools, and interactive maps, charts, and tables. This course provides a solid grounding in ArcGIS Insights capabilities and components. Learn how to structure an analysis and dynamically visualize and analyze nonspatial and spatial data together, then share your work using attractive visual themes and repeatable analysis workflow models

### WHO SHOULD ATTEND

---

GIS professionals, analysts, researchers, and others who want to dynamically visualize and analyze data

### GOALS

---

After completing this course, you will be able to

- Share your Insights project work with stakeholders, and create step-by-step analysis models that enable others to repeat or adapt the workflows you used.
- Start an analysis project in minutes by creating an Insights workbook; connecting to data sources, including spreadsheets and relational databases; location-enabling tabular data, and visualizing data relationships on interactive maps and charts.
- Expand an analysis by enriching a dataset with Esri demographics, adding layers from ArcGIS Living Atlas of the World, creating tables, time series graphs, data clocks, a link analysis, and more.
- Enhance and streamline an analysis by enabling the Insights scripting environment and using a Python script to create charts, scatter plots, and histograms.

### PREREQUISITES

---

Completion of Introduction to GIS or Introduction to GIS Using ArcGIS course.

## 20. Building 3D Cities Using ArcGIS CityEngine

### DURATION

---

Four days.

### OVERVIEW

---

Esri City Engine software uses a rule-based approach to help you efficiently produce highly realistic 3D models. This course introduces the City Engine procedural modeling workflow and best practices to create compelling 3D cities that can be used to visualize urban landscapes, explore impacts of proposed development, generate virtual city simulations, and support geodesign projects.

### WHO SHOULD ATTEND

---

GIS professionals, urban planners, landscape architects, architects, entertainment professionals, and others who want to create 3D city models and urban landscapes.

### GOALS

---

After completing this course, you will be able to

- Create an Esri City Engine project to organize and manage data and assets.
- Import 2D GIS data and apply Computer Generated Architecture rules to create detailed 3D shapes.
- Import, modify, and create rules to generate realistic content that brings a 3D city to life.
- Sketch and texture 3D building models.
- Share 3D city scenes to ArcGIS Online.

### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows.

## Track: Imagery & Remote Sensing

### 21. Introduction to Remote Sensing

#### DURATION

---

Two days.

#### OVERVIEW

---

This course teaches what Remote Sense is and what you can do with it. Working with various components of Remote Sense system, you will know about the workflow of Remote Sense and the power of ArcGIS Desktop in Remote Sense. GIS and Remote Sense very integrated, therefore the good GIS Analyst need to know how to apply the common Remote Sense image processing using ArcGIS Desktop and make a mapping between Remote Sense as a science and ArcGIS Desktop as a software.

#### WHO SHOULD ATTEND

---

GIS Analysts and Remote Sense specialists who need to know the power of ArcGIS in Remote Sense.

#### GOALS

---

After completing this course, you will be able to

- Understand what Remote Sense is, what it can do, and how others are using it
- Preparing the raw data to processing
- Access information about raw data provided
- How to interpreting and analyses the image
- Understand Sensors type, Platforms, Resolutions ... etc.
- Work with different types of Sensors data
- Common Remote Sense topics (Classification, Change Detection ... etc.)
- Use LiDAR data to extract Digital Elevation Model

#### PREREQUISITES

---

Completion of Introduction to GIS using ArcGIS

## 22. Imagery Analysis in ArcGIS Pro

### DURATION

---

Three days .

### OVERVIEW

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This course teaches how to extract meaningful information from satellite imagery, unpiloted aerial vehicle (UAV)-collected data, and other imagery formats. Workflows and considerations to display, process, and create derived raster products using ArcGIS Pro and ArcGIS Image Analyst are covered. You'll explore common imagery applications, including disaster recovery, damage assessment, and forest canopy assessment.

### WHO SHOULD ATTEND

---

Spatial data scientists and analysts who work with analysis in GIS in different industries. GIS professionals and imagery analysts who need to extract meaningful information from satellite imagery and other imagery formats

### GOALS

---

After completing this course, you will be able to

- Apply dynamic raster functions to enhance imagery display and perform change detection.
- Perform image classification and assess the accuracy of results.
- Post-process classified thematic rasters to support analysis needs.
- Work with derived information products including digital elevation models.

### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro

## 23. Working with Lidar Data in ArcGIS

### DURATION

---

Two days.

### OVERVIEW

---

This course introduces light detection and ranging (lidar) data concepts, collection methods, quality-control considerations, and common applications. Techniques to manage, edit, visualize, and share lidar-derived 2D and 3D information products using ArcGIS Pro are covered.

### WHO SHOULD ATTEND

---

GIS managers, data managers, analysts, specialists, and others who need to manage, create, analyze, and disseminate lidar data and lidar-derived information products.

### GOALS

---

After completing this course, you will be able to

- Validate the quality and accuracy of lidar data.
- Edit lidar data to correct errors.
- Organize, process, visualize, and share lidar data using ArcGIS LAS datasets, mosaic datasets, and point cloud scene layers.
- Derive useful information products from lidar data, including raster surfaces, building footprints, and vegetation estimates.

### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro.

### 24.Managing Geospatial Data in ArcGIS

#### DURATION

---

Three days.

#### OVERVIEW

---

This course takes you on an in-depth exploration of the geodatabase, the native data storage format for ArcGIS software. Best practices to create a geodatabase to centrally store and efficiently manage your organization's authoritative geospatial data are covered. You will develop skills needed to configure unique geodatabase features that ensure data integrity and accuracy over time and a thorough understanding of file and enterprise geodatabase capabilities.

#### WHO SHOULD ATTEND

---

- GIS data managers, analysts, specialists, data technicians, database administrators, and others who manage and maintain data stored in a geodatabase
- GIS managers who need to understand the capabilities of the geodatabase

#### GOALS

---

After completing this course, you will be able to

- Create a geodatabase, explore schema options, and evaluate appropriate data models.
- Add data to a geodatabase, edit feature geometry and attributes, and create a mosaic dataset to store and disseminate imagery.
- Define data rules and relationships to simplify data editing and ensure data integrity.
- Configure access to an enterprise geodatabase and create a versioned feature class to allow multiple concurrent editors.

#### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro

## 25. Deploying and Maintaining a Multiuser Geodatabase

### DURATION

---

Three days.

### OVERVIEW

---

This course prepares you to successfully create a multiuser geodatabase that stores and manages your organization's authoritative geographic data. Learn about the multiuser geodatabase architecture and apply techniques to efficiently load data, assign user privileges, and maintain performance over time.

### WHO SHOULD ATTEND

---

Spatial database administrators and GIS data managers.

### GOALS

---

After completing this course, you will be able to

- Create a multiuser geodatabase.
- Load and update data in a multiuser geodatabase.
- Configure user roles and permissions to provide secure data access.
- Apply best practices to optimize geodatabase performance.

### PREREQUISITES

---

- Completion of ArcGIS Pro: Essential Workflows or equivalent knowledge and experience managing a relational database management system.

## 26. Implementing Versioned Workflows in a Multiuser Geodatabase

### DURATION

---

Four days.

### OVERVIEW

---

Learn a sound versioning workflow that minimizes disruption to editors, ensures the integrity of your organization's GIS data, and integrates well with existing business workflows. This course explores a variety of versioned editing workflows and examines how versioning decisions impact data accuracy and database performance.

### WHO SHOULD ATTEND

---

GIS database managers or administrators who need to set up and manage a multiuser editing environment.

### GOALS

---

After completing this course, you will be able to

- Design a versioning workflow that meets your organization's needs.
- Load data into a versioned feature class.
- Manage multiple geodatabase versions.
- Monitor and maintain database performance in a versioned editing environment.

### PREREQUISITES

---

- Completion of Deploying and Maintaining a Multiuser

## 27. Configuring Branch Versioning in ArcGIS

### DURATION

---

Two days.

### OVERVIEW

---

This course prepares GIS professionals and database administrators to implement branch versioning in an enterprise geodatabase using ArcGIS Pro. Learn best practices to establish branch versioning workflows that support multiuser editing and the accuracy of your authoritative geospatial data. This course is especially relevant for organizations that have deployed ArcGIS Utility Network or ArcGIS Pro Parcel Fabric.

### WHO SHOULD ATTEND

---

GIS database managers and administrators who need to incorporate geodatabase into their organization's business.

### GOALS

---

After completing this course, you will be able to

- Create and edit a branch version of a feature class stored in an enterprise geodatabase.
- Configure user roles, group permissions, and privileges for branched-version editing.
- Share branch-versioned data as a service to support online and offline multiuser editing workflows.
- Implement conflict detection, track feature edits, synchronize offline edits to branch-versioned data, and compare version changes over time.

### PREREQUISITES

---

- Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro
- Completion of ArcGIS Enterprise: Configuring a Base Deployment

## Track: Web and Server GIS

### 28. Sharing Content to ArcGIS Enterprise

#### DURATION

---

Three days.

#### OVERVIEW

---

Web maps, apps, and other authoritative GIS resources are the lifeblood of an ArcGIS Enterprise portal website. This course covers key workflows and best practices to add resources to your portal and make them easily accessible. Get the information you need to efficiently share a variety of resources that support operational workflows, collaboration within and across business lines, and the ability of portal users to infuse their projects with location-based insight.

#### WHO SHOULD ATTEND

---

- GIS professionals who need to share their authoritative content
- Developers who want to incorporate ArcGIS services into custom apps
- Administrators who need to understand the process for publishing ArcGIS services

#### GOALS

---

After completing this course, you will be able to

- Understand the role that ArcGIS Enterprise components play in managing and sharing GIS resources.
- Manage access to shared resources and create descriptive information so that portal users can easily discover resources and assess their usefulness for their projects.
- Publish maps, feature layers, vector tile layers, and other GIS resources to an ArcGIS Enterprise portal.
- Apply expert techniques to optimize maps and layers before publishing to ensure high performance and an excellent user experience.

#### PREREQUISITES

---

Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro.

### DURATION

---

Three days.

### OVERVIEW

---

Learn how to present data simply and effectively to monitor key metrics and activities in progress and provide decision-makers with easy access to the data that matters most to them. This course covers the essential concepts and workflows you need to understand to create an ArcGIS Dashboards dashboard from scratch, configure it to meet your data users' needs, and share it with stakeholders.

### WHO SHOULD ATTEND

---

Specialists who are interested to learn how to wants to present a lot of data simply and effectively using visuals.

### GOALS

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After completing this course, you will be able to

- Efficiently create a dashboard and design its layout.
- Display dynamic data, attribute data, maps, and charts on a dashboard.
- Configure dashboard interactivity.
- Use Arcade expressions to create data sources for visualizations and format dashboard elements.

### PREREQUISITES

---

Familiarity with ArcGIS Online will be helpful.

## 30.ArcGIS Enterprise: Configuring a Base Deployment

### DURATION

---

Three days.

### OVERVIEW

---

Learn administration essentials to install and configure an ArcGIS Enterprise base deployment that enables individuals to securely access, create, and share geospatial resources. You will learn how to license and install the four software components of a base deployment and ensure system security and performance.

### WHO SHOULD ATTEND

---

IT and GIS administrators, GIS technical leads, and others who manage an ArcGIS Enterprise deployment.

### GOALS

---

After completing this course, you will be able to

- Install ArcGIS Server, Portal for ArcGIS, ArcGIS Data Store, and ArcGIS Web Adapter.
- Configure an ArcGIS Enterprise portal to manage users, groups, and content-sharing privileges.
- Apply HTTPS certificates to support encrypted communication.
- Configure a suitable authentication method for your organization's needs.

### PREREQUISITES

---

Completion of Sharing GIS Content Using ArcGIS Enterprise.

## 31.ArcGIS Enterprise Administration Workflows

### DURATION

---

Four days

### OVERVIEW

---

Master techniques to configure and maintain an ArcGIS Enterprise solution that meets your organization's business needs. You will learn about ArcGIS Enterprise architecture, server licensing roles and extensions, and the capabilities that support common GIS patterns of use. Best practices to manage servers, data, and services while ensuring high availability and system performance over time are covered.

### WHO SHOULD ATTEND

---

IT and GIS administrators, GIS technical leads, and others who manage an ArcGIS Enterprise deployment.

### GOALS

---

After completing this course, you will be able to

- Apply best practices to configure GIS resources and services.
- Maintain system performance using workload separation and other best practices.
- Configure distributed collaboration between multiple ArcGIS Enterprise portals.
- Use ArcGIS Notebooks and ArcGIS API for Python to automate common administrative functions.

### PREREQUISITES

---

Completion of ArcGIS Enterprise: Configuring a Base Deployment

## 32. Introduction to ArcGIS Hub

### DURATION

---

Two days.

### OVERVIEW

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Organizations around the world are using ArcGIS Hub to engage communities, promote transparency, and collaborate across departments. During this course, you will be introduced to ArcGIS Hub and how to get started with organizing internal staff and external collaborators to achieve your organization's community engagement goals.

You will learn also how ArcGIS Hub Basic allows an ArcGIS Online organization's administrators and Hub core team members to share open data effectively using Hub sites created.

### WHO SHOULD ATTEND

---

Specialists who are interested to learn how to use ArcGIS Hub capabilities and related technology to coordinate and engage with external agencies, community partners, volunteers, and citizens to tackle the projects that matter most in your community.

### GOALS

---

After completing this course, you will be able to

- Know what is ArcGIS Hub.
- Learn ArcGIS Hub Key Benefits.
- Create and administer an ArcGIS Hub site.
- How to developing a plan for sharing open data.
- Discover ArcGIS Hub Basic download formats.

### PREREQUISITES

---

Familiarity with basic GIS concepts and ArcGIS Online.

### 33. Creating Python Scripts for ArcGIS

#### DURATION

---

Four days.

#### OVERVIEW

---

Time is valuable. Learn how to create scripts that will streamline your GIS work. This course teaches how to access the Python environment in ArcGIS Pro, script common data management tasks, and automate geoprocessing workflows. You'll learn techniques to share your scripts so they are easily accessible both inside and outside ArcGIS Pro.

#### WHO SHOULD ATTEND

---

GIS analysts, specialists, data processors, and others who want to automate ArcGIS tasks and workflows.

#### GOALS

---

After completing this course, you will be able to

- Apply Python syntax rules, error-handling techniques, and tool validation to create robust scripts in ArcGIS Pro.
- Use lists and loops to repeat geoprocessing tasks within a script to create an efficient, repeatable analysis workflow.
- Use cursors to access geospatial data, edit attributes, and create and modify features.
- Create geoprocessing packages and custom script tools to share your Python scripts with other ArcGIS users.

#### PREREQUISITES

---

- Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro
- Knowledge of Python syntax and experience creating Python scripts is required.
- Basic programming skills, including using loops and conditional statements, are required.

## 34. Introduction to HTML & Java script

### DURATION

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One – Five days.

### OVERVIEW

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This course reviews basic concepts and basic syntax of JavaScript. You will know the difference between Java and JavaScript. You will go through JavaScript Syntax.

You will explore what JavaScript do & what it can't do as well as introducing Client and server-side architecture using JSON.

### WHO SHOULD ATTEND

---

GIS professionals and others with (without) experience with Hypertext Markup Language (HTML), Cascading Style Sheet (CSS) who want to develop custom web applications.

### GOALS

---

After completing this course, you will be able to

- Know What Is JavaScript
- Differentiate the main differences between JavaScript VS Java
- Learn Core JavaScript
- Know Client and server-side architecture using JSON
- Practice on JavaScript Syntax

### PREREQUISITES

---

Basics of Scripting Languages is recommended.

## 35. Introduction to Web Development using ArcGIS API for Java script

### DURATION

---

Three days.

### OVERVIEW

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Learn how to create web apps that feature ArcGIS content and capabilities. Version 4 of ArcGIS API for JavaScript provides a streamlined experience for application development and new capabilities to easily incorporate 2D and 3D content. This course introduces the API classes, components, and available functionality that will help you create high-performing web applications.

### WHO SHOULD ATTEND

---

GIS professionals and others with some Hypertext Markup Language (HTML), Cascading Style Sheet (CSS), and JavaScript experience who want to develop custom web applications

### GOALS

---

After completing this course, you will be able to

- Create apps that incorporate your organization's web maps, web scenes, and layers.
- Display and render maps in both 2D and 3D.
- Provide capabilities for end users to search and query map layers.
- Develop and test application functionality.

### PREREQUISITES

---

- Completion of ArcGIS Pro: Essential Workflows or Completion of Introduction to GIS Using ArcGIS
- Familiarity with ArcGIS and basic web development skills (HTML, CSS, and JavaScript)
- Basics of JavaScript Web Apps or equivalent knowledge is recommended.

## 36. Building Web Apps with ArcGIS Experience Builder

### DURATION

---

Three days.

### OVERVIEW

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Learn how to build immersive web apps that take advantage of modern web design principles without writing code. This course shows how to interactively create, configure, and publish mapcentric and datacentric web apps that feature your organization's content. This course is ideal for GIS professionals, web designers, and others who want to create engaging, responsive web applications.

### WHO SHOULD ATTEND

---

GIS professionals and Managers who want to easily create intuitive, focused web apps.

### GOALS

---

After completing this course, you will be able to

- Design the app layout and theme based on the audience and purpose.
- Configure widgets to enable users to interact with your organization's web maps and 2D and 3D data.
- Configure widgets to provide data-driven functionality across multiple pages.
- Test, preview, and publish your apps for use on a variety of devices.

### PREREQUISITES

---

- Creating and Sharing GIS Content with ArcGIS Online or equivalent knowledge is recommended

## 37. Get Started with ArcGIS Arcade

### DURATION

---

Three days.

### OVERVIEW

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Discover the unique role of the Arcade expression language within ArcGIS and explore concepts that underlie writing and executing Arcade expressions that can be used across the ArcGIS system (ArcGIS Online, ArcGIS Pro, ArcGIS Enterprise, and ArcGIS apps). In course exercises, you will get familiar with Arcade scripting environments and build expressions to customize map labels and pop-ups, create field calculations, enable data validation, and more. Leave class with a strong understanding of Arcade capabilities and community resources.

### WHO SHOULD ATTEND

---

GIS Desktop Application Developers

### GOALS

---

After completing this course, you will be able to

- Understand Arcade language features, profiles, and portability across the ArcGIS system.
- Apply a standard workflow to plan, write, and execute Arcade expressions.
- Use Arcade expressions within ArcGIS products.
- Identify, troubleshoot, and fix common scripting errors.

### PREREQUISITES

---

- Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro.
- Completion of ArcGIS Online: Essential Workflows or equivalent knowledge is required.

### 38. Creating Python in ArcGIS

#### DURATION

---

1 day.

#### OVERVIEW

---

Time is valuable, So need to write some scripts to save time and repeated process. Learn how to create scripts that will streamline your GIS work. This course teaches how to access the Python environment in ArcGIS Pro, script common data management tasks, and automate geoprocessing workflows. You'll learn techniques to share your scripts so they are easily accessible both inside and outside ArcGIS Pro. Python is very valuable programming language for Deep Learning and AI solutions.

#### WHO SHOULD ATTEND

---

GIS analysts, specialists, data processors, and others who want to automate ArcGIS tasks and workflows.

#### GOALS

---

After completing this course, you will be able to

- Apply Python syntax rules, error-handling techniques, and tool validation to create robust scripts in ArcGIS Pro
- Use lists and loops to repeat geoprocessing tasks within a script to create an efficient, repeatable analysis workflow
- Use cursors to access geospatial data, edit attributes, and create and modify features
- Create geoprocessing packages and custom script tools to share your Python scripts with other ArcGIS users

#### PREREQUISITES

---

- Completion of ArcGIS Pro: Essential Workflows or Migrating from ArcMap to ArcGIS Pro
- Basic programming skills, including using loops and conditional statements, are required.

## 39. Introduction to ArcGIS API for Python

### DURATION

---

Two days.

### OVERVIEW

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In this course, you will learn how Python API can help in scripting and automating your Web GIS. It will start with an introduction of the API, who it's for, and what it can do.

You will be introduced to the benefits of using the power of ArcGIS in the Python ecosystem using ArcGIS API for Python. This course also introduces numerous spatial capabilities available in ArcGIS API for Python.

### WHO SHOULD ATTEND

---

GIS analysts, Data scientists and others who want to automate ArcGIS tasks and workflows.

### GOALS

---

After completing this course, you will be able to

- Know the process of obtaining the API through ArcGIS Pro and Anaconda.
- Set up an IDE to write scripts or using the Jupyter Notebook.
- Learn a brief tour of the API
- know and tell of some of the powerful capabilities of the API.
- Describe the organization of modules and objects available in ArcGIS API for Python.

### PREREQUISITES

---

“Introduction to GIS for Geo AI” courses are required or equivalent knowledge.

## 40. ArcGIS API for python in Deep learning

### DURATION

---

Three days.

### OVERVIEW

---

In this course, you will use the self-paced training to learn how you can use ArcGIS API for Python API to tap into the geospatial component of your big data datasets and discern meaningful patterns to analyze and visualize spatial patterns in interactive Jupyter notebooks.

The ArcGIS QuickCapture app makes collecting and sharing field observations simple and fast. In this course you will see how organizations are using QuickCapture for rapid data capture from moving ground- or air-based vehicles. In addition, you will know the basic concepts of data science, machine learning, and artificial intelligence (AI) in the context of ArcGIS Notebooks—a new Python scripting environment in ArcGIS Enterprise.

You'll see how to script an analysis, automate repetitive tasks, and discover how the fields of spatial data science and GeoAI can help GIS professionals, researchers, scientists, and data scientists more fully understand and solve complex problems.

### WHO SHOULD ATTEND

---

GIS professionals, researchers, scientists, and data scientists who will use ArcGIS Platform to fully understand and solve complex problems.

### GOALS

---

After completing this course, you will be able to

- Use Jupyter notebook for analyze spatial patterns.
- Identify data collection scenarios that would benefit from the use of ArcGIS QuickCapture
- Configure ArcGIS feature layers for use with ArcGIS QuickCapture.
- Create and manage ArcGIS QuickCapture projects within an ArcGIS organization.
- Understand basic Jupyter Notebook concepts.
- Understand how to access and use popular data science libraries.
- Take advantage of ready-to-use sample notebooks included with ArcGIS Notebooks.
- Perform spatial analysis using ArcGIS API for Python.

### PREREQUISITES

---

- Completion of “Enterprise GIS for Geo AI” course.
- Completion of “Introduction to ArcGIS API for Python” course.

## 41. Introduction to Machine Learning & Deep Learning

### DURATION

---

Three days.

### OVERVIEW

---

Machine Learning (ML) is a set of data-driven algorithms and techniques that automate the prediction, classification, and clustering of data. Machine learning can play a critical role in spatial problem solving, from image classification and spatial pattern detection to multivariate prediction. In this session, you will gain a high-level overview of what is possible in ArcGIS, and discover where you can learn more.

Deep Learning is an AI technique that uses Deep Neural Networks to solve complex problems. One area of AI where deep learning has done exceedingly well is computer vision. This course enable users to easily use deep learning for imagery tasks such as feature extraction, pixel classification, and feature categorization.

### WHO SHOULD ATTEND

---

GIS professionals, researchers, scientists, and data scientists who will use ArcGIS Platform to fully understand and solve complex problems.

### GOALS

---

After completing this course, you will be able to

- Use both traditional and spatial ML tools in ArcGIS
- Know spatial data science techniques
- Equip you with the knowledge necessary to do great analysis.
- Learn about deep learning, how it can be applied to GIS.
- Learn the different types of geospatial deep learning models

### PREREQUISITES

---

- Completion of “Enterprise GIS for Geo AI” course.
- Completion of “Introduction to ArcGIS API for Python” course.

## 42. Machine learning & Deep Learning Using ArcGIS

### DURATION

---

Two days.

### OVERVIEW

---

Learn how to create intuitive, focused web apps that are accessible on desktop and mobile devices—without writing any code. This course shows how to take advantage of existing web maps, themes, and widgets to build apps that feature your organization's branding and deliver the functionality your users require.

### WHO SHOULD ATTEND

---

GIS professionals and Managers who want to easily create intuitive, focused web apps.

### GOALS

---

After completing this course, you will be able to

- Know how the deep learning workflow can also be scaled up using raster analytics running on ArcGIS Image Server.
- Use integration patterns for working with external ML frameworks.
- How you can use and create your own deep learning models.

### PREREQUISITES

---

Creating and Sharing GIS Content with ArcGIS Online or equivalent knowledge is recommended

### 43. Working with ArcHydro: Surface Water

#### DURATION

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Four days.

#### OVERVIEW

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This course presents the Arc Hydro data model and tools and shows how to implement them using a series of real-world examples. You will learn the basic principles of the Arc Hydro data model, how to extend it, and how the Arc Hydro tools manage and use the data model.

#### WHO SHOULD ATTEND

---

Those interested in ArcGIS water resource applications who want to implement the Arc Hydro data model and tools.

#### GOALS

---

After completing this course, you will be able to

- Learning how to apply Arc Hydro Data Model
- Loading Arc Hydro Toolbar and Toolbox
- Working with Attributes using Arc Hydro
- Managing Hydro ID
- Extending Arc Hydro data model
- Adding properties to existing Arc Hydro feature classes
- Adding additional feature classes to Arc Hydro projects and data model
- Creating Arc Hydro feature classes through tools
- Terrain processing manipulation
- Learning Advanced Arc Hydro functionality

#### PREREQUISITES

---

- Completion of ArcGIS 3: Performing Analysis.
- Completion of Working with Geometric Networks for Utilities.
- A general GIS or water resources background is required.
- Familiarity with ArcGIS (ArcMap in particular) is recommended.

## 44. Working with ArcHydro: Ground Water

### DURATION

---

Four days.

### OVERVIEW

---

This course will provide you with the knowledge and tools necessary to use the Arc Hydro Groundwater data model and tools. You will learn how to build and customize an Arc Hydro Groundwater geodatabase, import data, produce maps of temporal data such as water levels and water quality, manage and visualize borehole data, build 3D hydrogeological models inside ArcGIS including construction of 2D and 3D cross sections and volume models, and import, edit, visualize, and create workflows with MODFLOW models inside ArcGIS.

### WHO SHOULD ATTEND

---

Those interested in ArcGIS water resource applications who want to implement the Arc Hydro Groundwater data model and tools.

### GOALS

---

After completing this course, you will be able to

- Introduction to geodatabases and the Arc Hydro Groundwater data model.
- Building and customizing an Arc Hydro Groundwater geodatabase.
- Working with wells and time series data and creating water level maps using the Groundwater Analyst tools.
- Learn how to use Model Builder to automate workflows.
- Managing and visualizing borehole data (vertical, non-vertical).
- Building 3D hydrogeological models with Subsurface Analyst tools.
- Creating & editing 2D cross sections in ArcMap.
- Adding geological & geophysical data to XS2D.
- Introduction to groundwater simulation models and MODFLOW data model.
- Learn how groundwater models can be viewed in Arc Map to aid decision making.

### PREREQUISITES

---

- Completion of ArcGIS 3: Performing Analysis.
- Completion of Working with 3D GIS Using ArcGIS.
- A general GIS or water resources background is required.
- Familiarity with ArcGIS (ArcMap and ArcScene in particular) is recommended.

## 45. Introduction to Geospatial Concepts for Intelligence Using ArcGIS Pro

### DURATION

---

Three days.

### OVERVIEW

---

Learn foundational geospatial concepts that support the intelligence cycle. In the context of real-world scenarios, you will get hands-on practice applying ArcGIS Pro tools and workflows to prepare, visualize, analyze, and disseminate data that supports intelligence operations.

### WHO SHOULD ATTEND

---

Professionals in the military, intelligence, and national security communities who have minimal or no geospatial experience and who specialize in intelligence planning, geospatial intelligence, all-source intelligence, imagery exploitation, or intelligence production.

### GOALS

---

After completing this course, you will be able to

- Identify and prepare geospatial data and other content for visualization and analysis.
- Organize, create, and manage geospatial data stored in a geodatabase.
- Display geospatial data and imagery on a map.
- Create and disseminate information products to support mission planning and intelligence operations.

### PREREQUISITES

---

Experience working on a desktop personal computer and with Microsoft Office applications

## 46. Introduction to Geospatial Concepts for Intelligence Using ArcGIS AllSource

### DURATION

---

Three days.

### OVERVIEW

---

Learn foundational geospatial concepts that support the intelligence cycle. In the context of real-world scenarios, you will practice applying ArcGIS AllSource tools and workflows to prepare, visualize, analyze, and disseminate data that supports intelligence operations.

### WHO SHOULD ATTEND

---

Professionals in the military, intelligence, and national security communities who have minimal or no geospatial experience and who specialize in intelligence planning, geospatial intelligence, all-source intelligence, imagery exploitation, or intelligence production.

### GOALS

---

After completing this course, you will be able to

- Identify and prepare geospatial data and other content for visualization and analysis.
- Organize, create, and manage geospatial data stored in a geodatabase.
- Display geospatial data and imagery on a map.
- Create and disseminate information products to support mission planning and intelligence operations.

### PREREQUISITES

---

Experience working on a desktop personal computer and with Microsoft Office applications

## 47. Using ArcGIS for Geospatial Intelligence Analysis

### DURATION

---

Three days.

### OVERVIEW

---

This course teaches geospatial concepts and recommended workflows that support the production of timely, accurate, and actionable intelligence. Using relevant scenarios and operational problems, you will learn how to manage, analyze, and visualize geospatial data, then share your work by producing mission-specific products aligned with industry best practices.

### WHO SHOULD ATTEND

---

Emergency management, law enforcement, fire and rescue, and emergency call taking and dispatch professionals who have minimal experience with GIS and ArcGIS for Desktop (ArcMap) software.

### GOALS

---

After completing this course, you will be able to

- Evaluate and prepare geospatial data to support intelligence planning and analysis activities.
- Analyze potential threats to identify patterns, hot spots, and clusters.
- Use Military Tools for ArcGIS Pro and LocateXT to support production workflows, analysis, visualization, and information dissemination.
- Create and share operational map products that include military symbology.

### PREREQUISITES

---

Completion of Introduction to Geospatial Concepts for Intelligence

## 48. Using ArcGIS AllSource for Geospatial Intelligence Analysis

### DURATION

---

Three days.

### OVERVIEW

---

This course teaches geospatial concepts and recommended workflows that support the production of timely, accurate, and actionable intelligence. Using relevant scenarios and operational problems, you will learn how to manage, analyze, and visualize geospatial data, then share your work by producing mission-specific products aligned with industry best practices.

### WHO SHOULD ATTEND

---

Emergency management, law enforcement, fire and rescue, and emergency call taking and dispatch professionals who have minimal experience with GIS and ArcGIS for Desktop (ArcMap) software.

### GOALS

---

After completing this course, you will be able to

- Evaluate and prepare geospatial data to support intelligence planning and analysis activities.
- Analyze potential threats to identify patterns, hot spots, and clusters.
- Use Military Tools for ArcGIS Pro and LocateXT to support production workflows, analysis, visualization, and information dissemination.
- Create and share operational map products that include military symbology.

### PREREQUISITES

---

Completion of Introduction to Geospatial Concepts for Intelligence

## 49. Image Analysis for Defense and Intelligence

### DURATION

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Three days.

### OVERVIEW

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This course prepares geospatial intelligence and imagery professionals to work with a variety of imagery data in the context of realistic scenarios. Gain hands-on practice with ArcGIS Pro imagery tools and learn techniques and recommended workflows to create useful information that supports mission planning and tactical operations.

### WHO SHOULD ATTEND

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Emergency management, law enforcement, fire and rescue, and emergency team who is responsible for techniques and recommended workflows to create useful information that supports mission planning and tactical operations.

### GOALS

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After completing this course, you will be able to

- Choose appropriate imagery datasets for a given scenario and area of interest.
- Apply raster functions to enhance imagery display and perform change detection analysis.
- Perform image classification and analyze motion imagery to categorize land-cover features and identify areas and objects of interest.

### PREREQUISITES

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Completion of Introduction to Geospatial Concepts for Intelligence.

## 50. Using ArcGIS for Public Safety Workflows

### DURATION

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Three days.

### OVERVIEW

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This course introduces ArcGIS Pro software and a geographic approach that complements and enhances typical public safety workflows. You will work with tools to map and visualize public safety data, identify patterns, create actionable information, and produce dynamic maps and 3D scenes to effectively disseminate that information. Course exercises use realistic public safety scenarios.

### WHO SHOULD ATTEND

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Emergency management, law enforcement, fire and rescue, and emergency call taking and dispatch professionals who have minimal experience with GIS and ArcGIS for Desktop (ArcMap) software.

### GOALS

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After completing this course, you will be able to

- Display data stored in tables and spreadsheets as features on a map.
- Visualize trends and patterns in your data.
- Apply spatial analysis techniques to derive new information from your data.
- Edit GIS data to ensure responders, decision makers, and stakeholders have access to up-to-date data.

### PREREQUISITES

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Completion of Introduction to GIS Using ArcGIS

## 51. ArcGIS Analysis Workflows for Public Safety

### DURATION

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Three days.

### OVERVIEW

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Explore realistic scenarios as you learn a standard analysis workflow that will provide deeper insight into how location impacts public safety incidents, trends, and operations. Working primarily with ArcGIS Pro, you will explore tools and techniques to visualize and quantify public safety data, then share your analysis results using easy-to-understand maps and apps. This course is ideal for crime analysts and other public safety professionals in law enforcement, homeland security, emergency management, and related fields.

### WHO SHOULD ATTEND

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Fire/Rescue and EMS, Emergency/Disaster Management, Homeland/National Security, Law Enforcement and Wildland Fire Management professionals who needs to use ArcGIS for public safety decision making.

### GOALS

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After completing this course, you will be able to

- Evaluate and prepare data from a variety of sources to support an analysis project.
- Apply spatial statistics tools to identify patterns, hot spots, and clusters.
- Apply analytical techniques to predict behavior and impact of public safety phenomena.
- Share analysis results with decision makers and stakeholders.

### PREREQUISITES

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- Completion of Using ArcGIS for Public Safety Workflows
- Completion of: ArcGIS Pro: Essential Workflows

## 52. Introduction to Urban & Regional Planning Using ArcGIS

### DURATION

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Three days.

### OVERVIEW

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No matter how large or small your community, planners must deal with spatial information: parcel, zoning and land use data, addresses, transportation networks, and housing stock. As a planner, you also study and keep track of multiple urban and regional indicators, forecast future community needs, and plan accordingly to guarantee the quality of life for everyone in livable communities.

Federal, regional, state, county, and local planning agencies have realized the power of enterprise GIS to identify problems, respond to them efficiently, and share the results with the public. Esri GIS solutions provide tools to help you reach your agency mission while doing more and spending less.

### WHO SHOULD ATTEND

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Urban Planners who wants to figure out the best way to use the land in cities and neighborhoods.

### GOALS

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After completing this course, you will be able to

- How to manage and Monitoring Urban Activities
- Optimize Your Site Selection Process
- Defining and Mapping the Spatial components and urban and regional indicators
- Produce urban maps, reports, and graphs.

### PREREQUISITES

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- A general urban planning resources background is required.
- Familiarity with ArcGIS (ArcMap & ArcScene in particular) is required.

## Track: Managing GIS

### 53. GIS for Managers

#### DURATION

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Three days.

#### OVERVIEW

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The course teaches the fundamental concepts and basic functions of a GIS, the properties of GIS maps, and the structure of a GIS database. You will develop basic software skills by working with ArcGIS Desktop tools to visualize geographic data, create maps, query a GIS database, and analyze data using common analysis tools.

#### WHO SHOULD ATTEND

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Managers and GIS support staff who are infrequently use ArcGIS and need to understand how GIS fits into their organization.

#### GOALS

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After completing this course, you will be able to

- Learn GIS basics and Fundamentals
- Know Esri Family
- Introduce all ArcGIS Extensions
- Cover Basics of GPS
- Spatial Data Automation & production

#### PREREQUISITES

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Knowledge of Windows-based software for basic file management and browsing is required.

## 54. GIS project Management

### DURATION

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Three days.

### OVERVIEW

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The course teaches the fundamental concepts and basic functions of project management , Project Management Process, Obstacles facing Projects , and GIS Project Management Knowledge Areas like GIS Project Integration Management , GIS Project Scope Management , GIS project Time & Schedule , GIS Project Cost (Data cost ) Management , GIS project Quality Management ( Data Quality ), GIS project Human resources & Staffing needs, GIS Department communications with Other departments/ customers , GIS Project Risk Driven , and GIS Project procurement Management.

### WHO SHOULD ATTEND

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Managers and GIS specialists who aim to acquire knowledge and skills needed for managing GIS projects.

### GOALS

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After completing this course, you will be able to

- Introduce GIS project management Framework
- Know GIS project standards for a project
- Know Various GIS project Management Knowledge areas.

### PREREQUISITES

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Several years of experience in GIS field.



Authorized Learning Center Location

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