

Esri Eastern Africa 2023 Training Course Catalog



ArcGIS Foundation Courses

ArcGIS Online: Essential Workflows

Duration: 2 days

Overview

Get started with maps and apps.

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.

Goals

- 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

No experience with GIS or ArcGIS Online is required

Introduction to GIS Using ArcGIS

Duration: 3 days

Overview

Discover the power of spatial.

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.

Goals

- Identify appropriate 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.
- Perform spatial analysis to obtain information about map features within an area of interest.

Prerequisites

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

ArcGIS Foundation Courses

ArcGIS Pro: Essential Workflows

Duration: 5 days

Overview

Prepare to be productive with ArcGIS Pro.

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. Hands-on exercises will give you the experience needed to efficiently work with ArcGIS Pro.

Goals

- 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](#) or equivalent knowledge.

Putting ArcGIS across your organization

Duration: 3 days

Overview

Get a comprehensive introduction to The ArcGIS platform components and capabilities. In this course, you explore ArcGIS apps used for mapping and visualization, data collection and management, spatial analytics, collaboration and sharing. Discover how the ArcGIS platform helps organizations address common business challenges and apply location-based insights to streamline operations and improve decision making.

Goals

- Map and analyze business data using ArcGIS apps and tools.
- Create and share data, web maps, and web apps using an ArcGIS portal.
- Streamline field data collection workflows.
- Configure web apps and dashboards to monitor field operations in real time.

Prerequisite

Experience working with Microsoft Excel tables and other Windows-based software for file management and web browsing.

Migrating from ArcMap to ArcGIS Pro

Duration: 3 days

Overview

Meet the desktop app that makes GIS work more fun.

With faster tools and integrated 2D and 3D capabilities, ArcGIS Pro will streamline your GIS projects. 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

Goals

- Create an ArcGIS Pro project and import map documents.
- Import other ArcMap resources and identify potential migration issues.
- Create and modify map symbology, text, and layouts.
- Share geospatial resources to an ArcGIS Online organizational site or ArcGIS Enterprise portal.

Prerequisites

This course assumes significant ArcMap experience. If you have no previous ArcMap experience, take [ArcGIS Pro: Essential Workflows](#) instead of this course.

Sharing and Collaboration

Sharing Content to ArcGIS Enterprise

Duration: 3 days

Overview

Bring your enterprise GIS portal to life.

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.

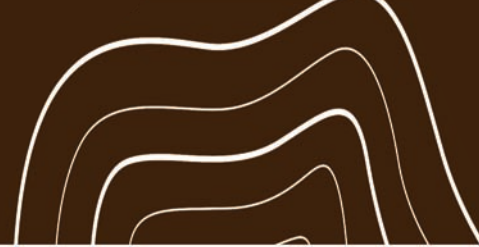
Goals

- 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](#) or equivalent knowledge.

Data Collection and Management



Getting Started with ArcGIS Dashboards

Duration: 1 day

Overview

Enable at-a-glance insight.

This course is for anyone who wants to present a lot of data simply and effectively using visually engaging dashboards. Learn how to display multiple data visualizations on a single screen that supports dynamic data exploration, real-time operations monitoring, and informed decision-making. The course covers dashboard types, design considerations, layout options, and techniques to organize and focus dashboard elements to meet the specific information needs of your audience.

Goals

- Add data from multiple sources to a dashboard.
- Configure dashboard elements, including maps, charts, indicators, and lists.
- Manage data display and maximize the visual impact of your dashboards.

Prerequisites

Familiarity with ArcGIS Online will be helpful. For those new to ArcGIS Online, completing the [ArcGIS Online Basics](#) web course is recommended but not required.

Working with Parcel Data in ArcGIS Pro

Duration: 4 days

Overview

Modernize land records data management.

This course teaches how to maintain accurate, up-to-date, and authoritative parcel data using ArcGIS Parcel Fabric and 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.

Goals

- Configure the ArcGIS 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](#) or equivalent knowledge.

Creating and Editing Data with ArcGIS Pro

Duration: 3 days

Overview

Maintain the accuracy of your authoritative GIS data.

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.

Goals

- 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.

Prerequisites

Completion of [ArcGIS Pro: Essential Workflows](#) or equivalent knowledge.

Data Collection and Management

Field Data Collection and Management

Duration: 3 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.

ArcGIS Field maps

Now anyone in your organization can easily capture and update data in the field, right from their smartphone or tablet. Using the ArcGIS field maps, included in ArcGIS organizational accounts, your organization can maintain accurate and up-to-date GIS data while increasing the productivity of its mobile workforce.

Operations Dashboard for ArcGIS

Monitor activities and events, track your field workforce, and assess the status and performance of your daily operations. Create focused executive dashboards that integrate maps, charts, and graphs.

Survey123

Survey123 for ArcGIS is about you allowing your field crew to collect data efficiently in the field and using that information to make better decisions.

One can design surveys, collect data in the field, and migrate that data into ArcGIS Online and ArcGIS desktop

Workforce for ArcGIS

Maximizing the efficiency of your field workforce is key to a successful mobile strategy. With the introduction of Workforce for ArcGIS now you can plan, monitor, and streamline field to office workflows using the ArcGIS platform.

Navigator for ArcGIS

Navigator for ArcGIS is a mobile app that gets your field workforce where it needs to be, unlocking efficiency and improving reliability. Use the data provided or your own data to search and navigate directly to your organization's assets. Interact seamlessly with Collector for ArcGIS, Survey123 for ArcGIS, Workforce for ArcGIS, and other apps, and get reliable directions even when disconnected.

Goals

- Create a web app to collect requests and generate work assignments
- Efficiently manage field workforce assignments and monitor field data collection in real time.
- Create and configure a web map for map-based data collection and surveys for form-based data collection.
- Create executive dashboards that integrate maps, lists, charts, and gauges for real-time operation views.
- Create a navigation map that includes custom asset data.

Prerequisite

Putting ArcGIS to use across your organization.

Data Collection and Management



Managing Geospatial Data in ArcGIS

Duration: 3 days

Overview

Achieve simplified data management that supports your organization's needs.

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.

Goals

- 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](#) or equivalent knowledge.

Database and Server Management



Configuring Branch Versioning in ArcGIS

Duration: 2 days

Overview

Support enterprise multiuser editing workflows.

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.

Goals

- Create and edit a branch version of a feature class stored in an enterprise geodatabase.
- Configure user roles, group permissions, and privileges for branch-versioned 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](#) and [ArcGIS Enterprise: Configuring a Base Deployment](#) or equivalent knowledge

ArcGIS Enterprise: Administration Workflows

Duration: 4 days

Overview

Essential concepts for enterprise administrators.

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.

Goals

- 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](#) or equivalent knowledge.

Database and Server Management



ArcGIS Enterprise: Configuring a Base Deployment

Duration: 3 days

Overview

Enable Web GIS workflows throughout your organization.

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.

Goals

- Install ArcGIS Server, Portal for ArcGIS, ArcGIS Data Store, and ArcGIS Web Adaptor.
- 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

Familiarity with ArcGIS and enterprise GIS software is recommended but not required.

ArcGIS Enterprise on Kubernetes

Duration: 3 days

Overview

Deploy ArcGIS Enterprise in cloud-native technology.

Get started with ArcGIS Enterprise on Kubernetes. Learn how microservices and containerization provide a cloud-native architecture for ArcGIS Enterprise emphasizing scalability, resilience, and maintainability.

Goals

- Understand the advantages of deployment on Kubernetes.
- Configure backup and security.
- Create an organization and tune performance.

Prerequisites

Familiarization with Kubernetes architecture.

Distributing Data Using Geodatabase Replication

Duration: 3 days

Overview

Extend access to GIS data.

This course teaches best practices to plan and implement geodatabase replication to support enterprise editing workflows and data-sharing initiatives. Learn how to protect the integrity and performance of your production database as data is collected and updated to reflect real-world conditions.

Goals

- Determine the number and type of replicas needed to support your organization's GIS workflows and applications.
- Plan an efficient synchronization strategy for replicated data.
- Manage schema changes between replicas.
- Publish replicated data as a hosted feature layer and share it using a web app to support field data collection and editing.

Prerequisites

Experience with enterprise geodatabases and versioned data is required. Completion of [ArcGIS Pro Basics](#) and [Getting Started with Geoprocessing](#) or equivalent knowledge is also required.

Database and Server Management



Deploying and Maintaining a Multiuser Geodatabase

Duration: 3 days

Overview

Support your organization's data management workflows.

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.

Note: During course exercises, you may work with the RDBMS product that is relevant for your organization (Oracle Database 11g Express Edition, Microsoft SQL Server, or PostgreSQL).

Goals

- 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.

Imagery and Remote Sensing



Imagery Analysis in ArcGIS Pro

Duration: 3 days

Overview

Transform pixels into information.

This course is for GIS professionals and imagery analysts in the private sector and civilian government agencies who need to extract meaningful information from satellite imagery, unmanned 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.

Are you looking for training on this topic for defence or intelligence professionals? See [this course](#) instead.

Goals

- 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.

Suggested Skills

Completion of [ArcGIS Pro: Essential Workflows](#) or [Migrating from ArcMap to ArcGIS Pro](#) or equivalent knowledge.

Working with Lidar Data in ArcGIS

Duration :2 days

Overview

Master the basics.

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.

Goals

- 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](#) or equivalent knowledge.

Imagery and Remote Sensing



Introduction to ENVI Analytics

Duration: 5 days

Overview

Do you need to quickly get up-to-speed on the full-featured functionality offered by ENVI, the premier remote sensing exploitation package?

As an Image Analyst ENVI's workflows and tools is very essential for your image analysis.

Goals

- Perform feature extraction and the object-oriented classification workflow.
- Perform Image display concepts and raster data management.
- Work with vector data in ENVI.
- Perform Image to Map registration and Principal component analysis.
- Extend ENVI using batch processing, Band and Spectral Math, and incorporating your own programs.

Prerequisite

Basic knowledge of Remote Sensing

Advanced ENVI Spectral Analytics

Duration: 5 days

Overview

Discover the power of the spectral analysis tools that make ENVI the industry leader in hyperspectral imagery exploitation. Hyperspectral data analysis allows the identification of materials on the Earth's surface due to the detailed sampling of the electromagnetic spectrum by hyperspectral sensors. This intensive three-day course focuses first on understanding the theory behind hyperspectral imaging, and then challenges the student to apply the theory with ENVI's advanced analysis and mapping algorithms.

Goals

- Perform analysis and derive different results for decision making.
- Perform whole pixel and sub-pixel-based analysis.
- Use hyperspectral data to perform analysis.
- Use different methods for Image mosaicking.
- Detect change from different images. Use regions of interest and classification.
- Work with spectral libraries.
- Preprocess data before using it in any application.

Prerequisite

Introduction to ENVI Analytics, this is an advanced ENVI Class and a working knowledge of ENVI is desirable.

Imagery and Remote Sensing

ENVI-Extracting information from LiDAR Data

Duration: 3 days

Overview

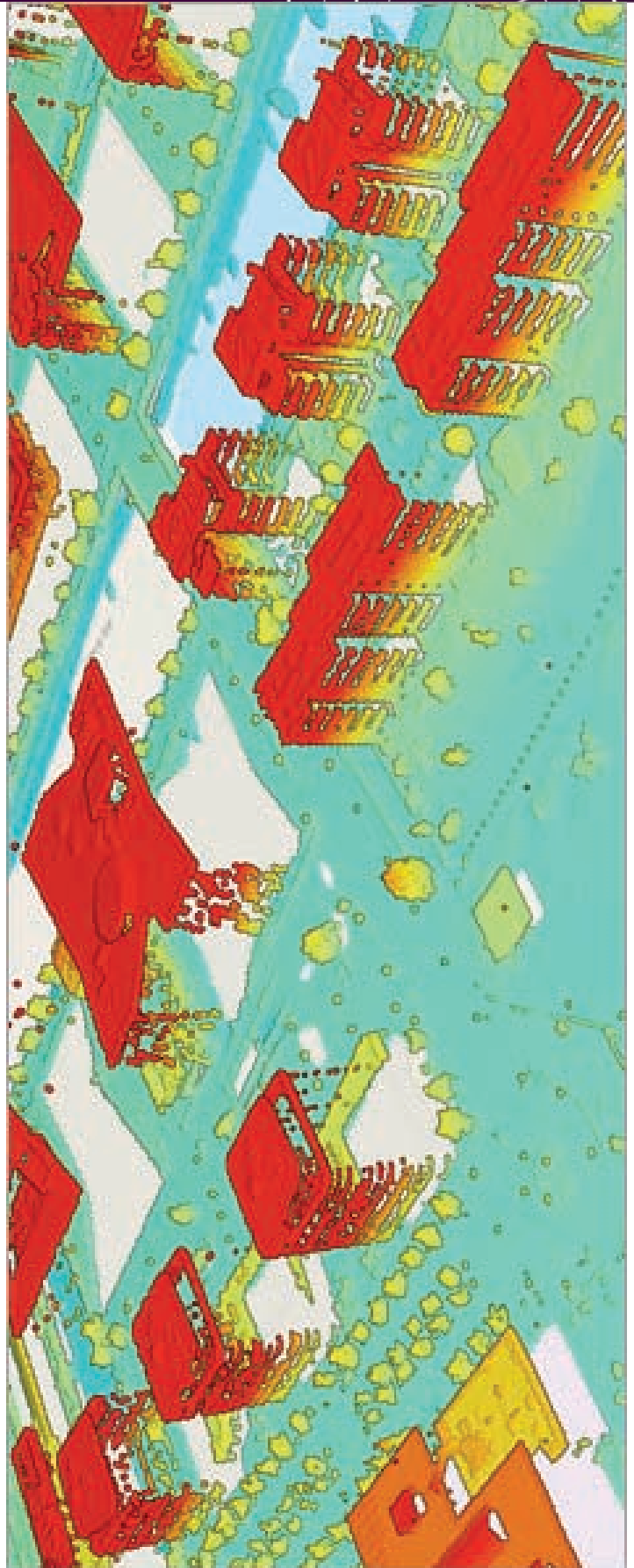
ENVI LiDAR (formerly known as E3De) transforms geo-referenced LiDAR point clouds into geographical information system (GIS) layers that can be exported to many output formats and to 3D visual databases. ENVI LiDAR creates Digital Elevation Models (DEM) and automatically identifies features such as buildings, trees, power poles, and power lines. This scenario will give you an overview of ENVI LiDAR tools for displaying LiDAR point clouds, using and controlling colors, doing geospatial measurements (mensuration), and using the cross-section tool.

LiDAR data is becoming of greater interest to the geospatial data community, as it provides the ability to precisely measure the geographic position of targets in 3 dimensions (x, y, z) from an airborne, vehicle or fixed location. In addition to the geographic location of a data point, LiDAR sensors can characterize the reflectivity of a material based on the intensity of a return pulse. Also, a LiDAR sensor can capture multiple return pulses from particular areas, indicating the existence of multiple objects and/or vegetation cover. The information gathered by a LiDAR sensor can be used to better understand the surface of the earth and the materials and objects covering the surface of the earth.

Goals

The primary objectives of this scenario are to:

- Introduce the ENVI LiDAR user interface.
- Give the student some hands-on experience displaying and navigating through a 3D point cloud.
- Introduce the concept of LiDAR product generation.
- Introduce the methods for sharing LiDAR products with other applications.



Configuring Utility Networks in ArcGIS

Duration: 4 days

Overview

Modernize your utility network infrastructure.

This course prepares GIS administrators, technical leads, and others to deploy 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.

Goals

- Choose a method to migrate existing features into a utility network.
- Configure customizations to enhance network diagrams and tracing and editing workflows.
- Build a utility network using geoprocessing tools.

Prerequisites

Completion of [Working with Utility Networks in ArcGIS](#) or equivalent knowledge.

Introduction to Geospatial Concepts for intelligence

Duration: 2 days

Overview

Apply geospatial capabilities to support mission success.

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.

Goals

- 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 is required.

This course assumes familiarity with ArcGIS Pro. If you are new to ArcGIS Pro, completing the free [ArcGIS Pro Basics](#) web course prior to attending this course is recommended.

ArcGIS Enterprise: Analysis Workflows for Intelligence

Duration: 3 days

Overview

Create and share intelligence products in the cloud.

This course—for analysts in the defense, intelligence, and public safety communities—introduces mapping and analysis capabilities available through their organization's ArcGIS Enterprise portal. Learn workflows to leverage ArcGIS Enterprise capabilities and apps to make web maps, analyze data, and create useful information products to share with decision-makers.

Goals

- Understand the types of content that can be shared to an ArcGIS Enterprise portal and how to find content that supports your needs.
- Create a web map, add layers to it, and analyze data.
- Configure a web app to share analysis results.
- Create dashboards, immersive digital stories, and rich web experiences to support real-time monitoring of operations and decision-making.

Prerequisites

Completion of [Introduction to Geospatial Concepts for Intelligence](#) or [Using ArcGIS for Public Safety Workflows](#) or equivalent knowledge is required.

Completion of [Using ArcGIS for Geospatial Intelligence Analysis](#) or [ArcGIS Analysis Workflows for Public Safety](#) is recommended but not required.

Using ArcGIS for Geospatial Intelligence Analysis

Duration: 3 days

Overview

Mission support that uses the power of location.

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.

Goals

- Evaluate and prepare geospatial data to support intelligence planning and analysis activities.
- Analyze potential threats to identify patterns, hot spots, and clusters.
- Apply ArcGIS Pro geoprocessing tools and ArcGIS 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](#) or equivalent knowledge.

Working with Utility Networks in ArcGIS

Duration: 3 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.

Goals

- 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.



Prerequisite

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

Using ArcGIS for Public Safety Workflows

Duration: 3 days

Overview

Improve response, increase safety.

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.

Goals

- 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.

Prerequisite

Completion of [Introduction to GIS Using ArcGIS](#) or equivalent knowledge is recommended. Experience with Windows-based software for basic file management and browsing is required

Industry Focused

GIS for Humanitarian Assistance

Duration: 5 days

Overview

The course focuses on the specific skills needed to support emergency relief efforts, with an emphasis on finding, importing, and managing spatial data in regions with poor infrastructures. The aim of this training is to explore applications of GIS analysis in humanitarian assistance, and more broadly in emergency management.

Goals

- Demonstrate key applications of GIS for humanitarian assistance.
- Apply the geospatial technologies to humanitarian assistance.

GIS for Water Utilities

Duration: 5 days

Overview

The Role of GIS in the Digital Water Transformation

Utilities' core function is the timely, orderly movement of water flows, wastewater, and stormwater. This report, created with Bluefield Research, discusses how GIS is the foundation for digital water transformation. GIS facilitates integration, coordination, and analysis of disparate hardware and software, workers and processes, and departments and datasets across space and time.

Goals

- Integrate and Organize GIS Data.
- Build water networks.
- Use layers to create optimal map display.

GIS for monitoring and Evaluation of Project Activities

Duration: 5 days

Overview

The course focuses on integrating GIS with Monitoring and Evaluation in project management, thus improving the effectiveness and communications of results to management, funding partners, and beneficiaries. GIS is fundamental in creation and use of maps and charts to help reveal relationships, patterns, and trends for project indicators in a way that is quickly understood by program managers and easy to share.

Goals

- Develop an M&E-GIS System
- Integrate existing M&E data with GIS
- Collect data using mobile phones
- Analyse and visualize M&E data



GIS for Urban and Regional Planning

Duration: 5 days

Overview

The goal of this course is to introduce Geographic Information Systems (GIS) to professionals in Urban and Regional Planning. GIS is a contemporary tool used in various disciplines. However, in Urban and Regional planning, GIS is useful for urban analysis, land use analysis, site analysis and modelling, coastal zone and riparian reserve management, urban renewal and regeneration, transportation planning among others. As a practical course, the focus is to impart and enhance their analytical skills using GIS analytical tools for presentation, communication and decision making which forms the bedrock of Urban planning as a profession.

Goals

- Understand the ArcGIS platform.
- Provide planning professionals with a full understanding of GIS concepts and principles and how it can be used for Urban and Regional planning.
- Explore basic GIS functionality and data management concepts.
- Utilize GIS to identify and map trends, patterns, and problems within the planning sector.
- Perform various analysis and modelling to aid decision making in urban planning context.
- Disseminate information to internal and external stakeholders.

ArcGIS Essential workflows for protected area

Duration: 5 days

Overview

Prepare to be productive with ArcGIS Pro.

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. Hands-on exercises will give you the experience needed to efficiently work with ArcGIS Pro.

Goals

- 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.

Prerequisite

Completion of [Introduction to GIS Using ArcGIS](#) or equivalent knowledge.

Mapping and Visualization



ArcGIS Exploring the Possibilities

Duration: 3 days

Overview

Power your organization with location intelligence.

Everyone loves maps, but ArcGIS capabilities go way beyond mapping. This course—for business and technical leaders and staff—explores how organizations use ArcGIS to streamline operations, gain deeper insight from data, and enhance collaboration across business lines. Discover how ArcGIS capabilities work together to enable efficiencies and insight at scale, and get inspired by what's possible when location intelligence is infused throughout the enterprise.

Goals

- Invigorate reports and communications using immersive ArcGIS stories to increase collaboration among teams, project stakeholders, and the public using ArcGIS Hub sites.
- Realize ArcGIS benefits more quickly with people-focused change management and ArcGIS Solutions configured for specific industry workflows and key information products.
- Understand how ArcGIS functions as a system of record, engagement, and insight that supports critical workflows and business needs.
- Enable impactful insight and information-sharing through an ArcGIS portal that enables easy access to geographic data, ready-to-use content, and web maps and apps.

Prerequisite

No experience with GIS or ArcGIS is required.

Introduction to ArcGIS Indoors

Duration: 4 days

Overview

Bring your GIS inside.

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. You'll also explore data considerations and data-preparation techniques in ArcGIS Pro.

Goals

- Import georeferenced CAD and BIM floor plan data into an ArcGIS Indoors geodatabase.
- Build a routable indoor network that supports wayfinding using ArcGIS Indoors apps.
- Create floor-aware maps and 3D scenes.
- Deploy ArcGIS Indoors mobile and web apps to enable individuals to easily navigate a building and reserve meeting rooms and workspaces.

Prerequisite

Completion of [ArcGIS Pro: Essential Workflows](#) or [Migrating from ArcMap to ArcGIS Pro](#) and [ArcGIS Indoors Basics](#) or equivalent knowledge.

Mapping and Visualization



Creating Maps and Visualizations with ArcGIS

Duration: 3 days

Overview

For decades, ArcGIS software has been used to visualize geographic data by creating maps. With ArcGIS Pro, you can still create traditional 2D maps, but you can also create other types of visualizations, such as 3D scenes, animations, charts, and web maps. In this course, you will learn the basics you need to know to create effective visualizations that fulfill their intended purpose and meet the needs of your audience. You will learn some foundational cartographic concepts, and how to apply them to different types of information products.

Goals

After completing this course, you will be able to perform the following tasks:

- Prepare data for a mapping project.
- Design map elements that are appropriate for your data, audience, map purpose, and delivery medium.
- Apply 2D and 3D cartographic best practices to create and share print maps, web maps, and 3D scenes.
- Create animations to visualize dynamic data and change over time.

Prerequisite

Completion of ArcGIS Pro Essential Workflows or equivalent knowledge required.

Creating stories with ArcGIS

Duration: 2 days

Overview

ArcGIS Story Maps helps you inform, engage, and inspire your audience by harnessing the power of maps and geography to tell your story. You can do more with stories than identify the best restaurants in town or nearby historical landmarks. Organizations can use stories to communicate policy, involve the community, promote a cause, demonstrate benefits, provide public information about an event, educate, or simply inspire.

Using stories, you can combine authoritative maps and data with narrative text, photos, and multimedia content without the need for any web development or coding expertise. This course introduces you to ArcGIS Story Maps. You will learn the basic principles of storytelling and how to build, edit, publish, and share your story publicly, on social media, or within your organization. You will use themes to customize the design of your stories and story collections to group content for easy access and sharing. You will create stories to inform and inspire your audience with place-based multimedia experiences. You will also learn new ways and best practices to communicate with maps and effectively use your data.

Goals

- After completing this course, you will be able to perform the following tasks: Understand the skills and role of the storyteller involved in creating successful stories using the ArcGIS Story Maps builder.
- Plan for the use and implementation of stories within an organization.
- Apply standard workflows and best practices to create and optimize stories for an engaging user experience.
- Publish and share stories.

Mapping and Visualization



Preparing data for GIS Applications

Duration: 3 days

Overview

This course covers aspects of data needed for GIS projects, from data sources and metadata to evaluation of different datasets across five different elements of data quality. You will consider the data needs for a GIS project, acquire and prepare data, evaluate the quality of GIS data, modify data for a project, and document evaluation results in metadata.

Goals

After completing this course, you will be able to perform the following tasks:

- Consider data needs for a GIS project
- Acquire data for a GIS project
- Assess the quality of GIS data
- Modify data to use in a project

Scripting and Application Development

Configuring Web Apps USING ArcGIS Web AppBuilder

Duration: 2 days

Overview

Make custom-looking apps without custom coding.

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.

Goals

- Plan a web app's design based on the audience and required functionality.
- Configure themes and widgets to meet web app requirements.
- Evaluate web app design and functionality on virtual devices.
- Publish a web app.

Prerequisite

Completion of [Creating and Sharing GIS Content with ArcGIS Online](#) or equivalent knowledge.

Creating Python Scripts for ArcGIS

Duration: 4 days

Overview

Script. Save time. Repeat.

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.

Goals

- Apply Python syntax rules to create robust scripts in ArcGIS Pro.
- Use automation techniques to repeat geoprocessing tasks in a Python script to create an efficient, repeatable analysis workflow.
- Use Python to access geospatial data, edit attributes, and create and modify features.
- Create custom Python script tools that can be shared with other ArcGIS users.

Prerequisite

Completion of [ArcGIS Pro: Essential Workflows](#) or [Migrating from ArcMap to ArcGIS Pro](#) or equivalent knowledge is required.

Some familiarity with Python and basic programming concepts is assumed. Those new to Python should complete the free web course [Python for Everyone](#) prior to class.

Spatial analytics

Location Analytics Using ArcGIS Insights

Duration: 3 days

Overview

Ask questions, find answers.

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. Course concepts apply to all ArcGIS Insights deployment options. Attendees will use Insights desktop in course exercises.

Goals

- 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.

Prerequisite

Some familiarity with GIS concepts may be helpful. Completion of [Introduction to GIS Using ArcGIS](#) or equivalent knowledge is recommended but not required.

Spatial Analysis Using ArcGIS Pro

Duration: 4 days

Overview

Identify patterns, make predictions, answer questions.

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 Advanced license of ArcGIS Pro and ArcGIS 3D Analyst, ArcGIS Spatial Analyst, and ArcGIS Geostatistical Analyst.

Goals

- 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.

Prerequisite

Completion of [ArcGIS Pro: Essential Workflows](#) or [Migrating from ArcMap to ArcGIS Pro](#) or equivalent knowledge.

Pricing (Prices are Exclusive of VAT)

Acronym	Current Courses	Days	Cost (KE)	Cost (UG/TZ)
AGON	ArcGIS Online: Essential Workflows	2 Days	\$ 300	\$260
APEW	ArcGIS Pro: Essential Workflows	5 Days	\$750	\$650
GISA	Introduction to GIS Using ArcGIS	3 Days	\$450	\$390
PAGO	Putting ArcGIS across your organization	3 Days	\$450	\$390
PROM	Migrating from ArcMap to ArcGIS Pro	3 Days	\$450	\$390
ESHA	Sharing Content to ArcGIS Enterprise	3 Days	\$450	\$390
DASH	Get Started with ArcGIS Dashboards	1 Day	\$150	\$130
EDAP	Creating and Editing Data with ArcGIS Pro	3 Days	\$450	\$390
FIDA	Field data collection and management	3 Days	\$450	\$390
GDAT	Managing Geospatial Data in ArcGIS	3 Days	\$450	\$390
PADA	Working with Parcel Data in ArcGIS Pro	4 Days	\$600	\$520
BRAV	Configuring Branch Versioning in ArcGIS	2 Days	\$300	\$260
EADM	ArcGIS Enterprise: Administration Workflows	4 Days	\$600	\$520
EBAS	ArcGIS Enterprise: Configuring a Base Deployment	3 Days	\$450	\$390
EKBC	ArcGIS Enterprise on Kubernetes	3 Days	\$450	\$390
GREP	Distributing Data Using Geodatabase Replication	3 Days	\$450	\$390
MMGD	Deploying and Maintaining a Multiuser Geodatabase	3 Days	\$450	\$390
IMAP	Image analysis in ArcGIS Pro	3 Days	\$450	\$390
LIDR	Working with Lidar Data in ArcGIS	2 Days	\$300	\$260
	Introduction to ENVI Analytics	5 Days	\$750	\$650
	Advanced ENVI Spectral Analytics	5 Days	\$750	\$650
	ENVI-Extracting Information from LiDAR Data	3 Days	\$450	\$390
CUTI	Configuring Utility Networks in ArcGIS	3 Days	\$450	\$390
GCON	Introduction to Geospatial Concepts for Intelligence	3 Days	\$450	\$390
IMAD	Image analysis for defense and intelligence	3 Days	\$450	\$390
NTEL	ArcGIS Enterprise: Analysis Workflows for Intelligence	3 Days	\$450	\$390
UAGA	Using ArcGIS for Geospatial Intelligence Analysis	3 Days	\$450	\$390
UTIL	Creating and Managing Utility Networks with ArcGIS	3 Days	\$450	\$390
	Using ArcGIS for Public Safety Workflows	3 Days	\$450	\$390
	GIS for Humanitarian Assistance	5 Days	\$750	\$650
	GIS for Monitoring and Evaluation of Project Activities	5 Days	\$750	\$650
	GIS for Water Utilities	5 Days	\$750	\$650
	GIS for Urban and Regional Planning	5 Days	\$750	\$650
	ArcGIS Essential workflows for protected area	5 Days	\$750	\$650
EXPO	ArcGIS Exploring the possibilities	3 Days	\$450	\$390
INDR	Introduction to ArcGIS Indoors	4 Days	\$600	\$520
MVIZ	Creating Maps and Visualizations with ArcGIS	3 Days	\$450	\$390
PRED	Preparing data for GIS Applications	3 Days	\$450	\$390
STAR	Creating stories with ArcGIS	2 Days	\$300	\$260
CWAB	Configuring Web Apps Using ArcGIS Web AppBuilder	2 Days	\$300	\$260
PYTS	Creating Python Scripts for ArcGIS	4 Days	\$600	\$520
LOAN	Location Analytics Using ArcGIS Insights	3 Days	\$450	\$390
SNAP	Spatial Analysis Using ArcGIS Pro	4 Days	\$600	\$520



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