

# ArcGIS Courses Description



**esri**

Authorized  
Learning Center

# ArcGIS Desktop

Designed to help you master critical GIS skills and be productive right away with the ArcGIS tools for visualizing, analyzing and managing geographic data.

## ArcGIS 1: Introduction to GIS

Duration: 2 days (16 hours)

### Description:

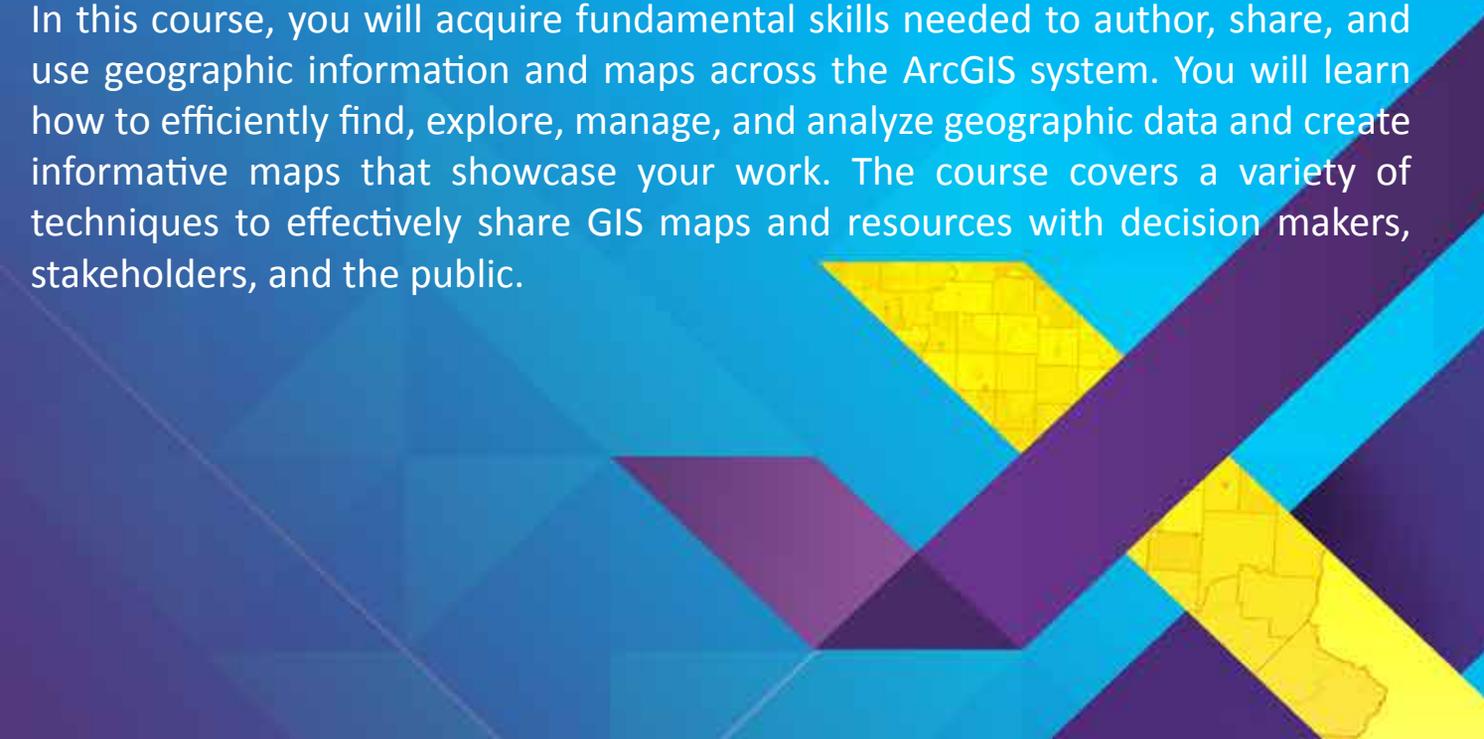
This course teaches what a GIS is and what you can do with it. Working with various components of the ArcGIS system, you will create GIS maps, explore and analyze the data behind the maps, and apply methods to easily share your maps. By the end of the course, you will have a solid understanding of how GIS maps and ArcGIS tools are used to visualize real-world features, discover patterns, obtain information, and communicate that information to others.

## ArcGIS 2: Essential Workflows

Duration: 3 days (24 hours)

### Description:

In this course, you will acquire fundamental skills needed to author, share, and use geographic information and maps across the ArcGIS system. You will learn how to efficiently find, explore, manage, and analyze geographic data and create informative maps that showcase your work. The course covers a variety of techniques to effectively share GIS maps and resources with decision makers, stakeholders, and the public.



## ArcGIS 3: Performing Analysis

Duration: 2 days (16 hours)

### Description:

Advance your foundational ArcGIS skills by learning how to obtain reliable results from different types of GIS analysis. You will apply a standard workflow to efficiently solve spatial problems using a variety of ArcGIS tools and vector, raster, and temporal data. Techniques to effectively share your analysis workflows and results are covered. This course is taught using ArcGIS for Desktop Advanced and some course exercises use tools provided in the ArcGIS Spatial Analyst extension.

## Designing Maps with ArcGIS

Duration: 2 days (16 hours)

### Description:

This course teaches how to create attractive maps that are easy to interpret and properly designed for their audience and delivery medium, with an emphasis on applying fundamental cartographic design principles. You will learn how to follow a standard cartographic workflow to efficiently produce highquality maps for print and online use.



## Editing Data with ArcGIS for Desktop

Duration: 2 days (16 hours)

### Description:

To produce GIS maps and analysis results that support informed decision making, accurate data is essential. This course teaches methods for accurately creating and maintaining data stored in a geodatabase. You will learn a recommended workflow for data automation and practice with tools and techniques that help ensure data integrity during editing.

## Quality Control Using ArcGIS Data Reviewer

Duration: 2 days (16 hours)

### Description:

This course teaches how to use ArcGIS Data Reviewer software (an extension to ArcGIS Desktop) to find, track, and correct spatial and attribute errors in GIS data. You will learn about the more than 40 automated checks that you can configure and run to ensure data accuracy, and you will work with visual review tools to document data anomalies and errors.

## Creating and Analyzing Surfaces Using ArcGIS Spatial Analyst

Duration: 1 day (8 hours)

### Description:

In this course, you will use ArcGIS Spatial Analyst to model a variety of real-world scenarios to create new data, derive new information from existing data, analyze complex terrain attributes, and solve problems. You will work with elevation rasters and other data to model surfaces, evaluate results, and create a variety of maps for more informed decision-making.

## Geoprocessing Raster Data Using ArcGIS Spatial Analyst

Duration: 1 day (8 hours)

### Description:

This course examines techniques for performing raster-based geoprocessing using ArcGIS Spatial Analyst. You will work with many of the ArcGIS Spatial Analyst tools, operators, and functions used to analyze raster data and derive actionable knowledge from it, empowering better decisions throughout your organization. In course exercises, you will build map algebra expressions and models to execute geoprocessing workflows and manipulate raster data to make it suitable for analysis. This course also covers basic concepts of fuzzy logic, a science-based approach to modeling inaccuracy in attribute data, and you will learn how to apply fuzzy logic to create a suitability model.



## Working with CAD Data in ArcGIS Desktop

Duration: 2 days (16 hours)

### Description:

Knowing how to integrate CAD data into GIS workflows will help you streamline GIS data editing, enhance GIS maps, and perform GIS analyses. In this course, you will learn how to display CAD data with GIS layers in ArcGIS, use CAD data directly in ArcGIS geoprocessing and analysis operations, and import CAD data into a geodatabase. Techniques and best practices for data conversion to support integrated CAD/GIS workflows are covered.

## Working with Geometric Networks for Utilities (10.0)

Duration: 1 day (8 hours)

### Description:

This course teaches the fundamental concepts of a geometric network and the workflow for creating one. Using utilities data, you will create and edit geometric networks and perform analysis on electric, gas, and water/wastewater networks. These skills will enable you to accurately model your network and help your organization quickly respond to network outages, deliver improved customer service, and manage network assets.

## Working with ArcGIS Network Analyst

Duration: 2 days (16 hours)

### Description:

Built around the new network dataset, ArcGIS Network Analyst software incorporates an advanced connectivity model that more accurately represents real-world multimodal networks. This course teaches how to create network datasets and migrate existing data, such as shapefiles and coverages, into a network dataset. Participants work with network datasets to solve different types of network problems such as finding the most efficient travel route, finding the closest facility, and defining service areas based on travel time. The course also teaches how to calculate origin-destination matrices for network locations.

## Working with 3D GIS Using ArcGIS

Duration: 2 days (16 hours)

### Description:

At version 10, ArcGIS 3D Analyst supports a complete solution for 3D GIS. This course teaches fundamental concepts of 3D GIS as you learn how to visualize, edit, model, and analyze GIS data within a 3D context.

## Esri Technical Certification: Skills Review for ArcGIS Desktop Associate

Duration: 2 days (16 hours)

### Description:

This course helps prepare you to take the ArcGIS Desktop Associate certification exam. You will review and apply your ArcGIS skills in the areas of GIS data management, editing, visualization, and analysis. Hands-on practice with ArcGIS for Desktop software is emphasized.

*This course is designed as an exam preparation resource. You are not required to take this course to earn the certification, and completing this course does not guarantee you will pass the exam.*

## Introduction to ArcGIS Pro for Professionals

Duration: 2 days (16 hours)

### Description:

Learn essential ArcGIS Pro terminology and get prepared to efficiently complete many different tasks related to mapping, editing, geoprocessing, and analysis. ArcGIS Pro, the newest application included with ArcGIS 10.3 for Desktop, is designed to help GIS professionals complete their projects and share their results more quickly and easily than ever before. With its modern ribbon interface and tight integration of 2D and 3D capabilities, ArcGIS Pro will streamline the way you do your GIS work.

## **ArcGIS Online Subscriptions for Organizations: Publisher/User Workflows**

Duration: 1 day (8 hours)

### **Description:**

This workshop is intended to introduce you to the types of content your organization may distribute through its ArcGIS Online site. You will see how this content helps you infuse your projects with geographic context, additional business intelligence, and visual impact. Also, This workshop is intended to quickly give you key information you need to publish content that helps your organization get the most value out of its ArcGIS Online site.

## **Image Analysis with ArcGIS**

Duration: 2 days (16 hours)

### **Description:**

Learn best practices and workflows to enhance visualization and extract meaningful information from satellite imagery, lidar, and other remotely sensed data. This course covers dynamic raster processing options available in ArcGIS and takes you on an in-depth exploration of image classification. You will use three classification methods to categorize land cover features and learn how to determine which method is appropriate for a given project and dataset.

# Geodatabase

These courses are for those who are responsible for developing workflows and management strategies for geodatabases.

## Building Geodatabases

Duration: 3 days (24 hours)

### Description:

This course teaches the essential concepts and skills needed to efficiently create a geodatabase, add data to it, and realistically model the real-world spatial relationships inherent to your data. You will learn about unique geodatabase features that help ensure data integrity over time and why the geodatabase is the preferred format for storing and managing geographic data. Course concepts apply to file-based and multiuser ArcSDE geodatabases. This course is taught using ArcGIS for Desktop Advanced.

## Implementing Versioned Workflows in a Multiuser Geodatabase

Duration: 2 days (16 hours)

### Description:

A successful multiuser editing environment requires a sound versioning workflow that minimizes disruption to editors, ensures the integrity of GIS data, and integrates well with existing business workflows—all while maintaining optimal database performance. This course explores a variety of versioned editing workflows and examines how versioning decisions impact data accuracy and database performance.

## Configuring & Managing the Multiuser Geodatabase

Duration: 3 days (24 hours)

### Description:

This course prepares you to successfully deploy a multiuser geodatabase to manage your organization's critical geographic data assets. You will learn about the multiuser geodatabase architecture and installation options, and how to configure the geodatabase for efficient data storage and delivery of data access and editing capabilities to many users. Although course exercises use the enterprise geodatabase, many course concepts also apply to workgroup geodatabases.

## Distributing Data Using Geodatabase Replication

Duration: 2 days (16 hours)

### Description:

Geodatabase replication is a powerful way to extend access to GIS data stored in a multiuser ArcSDE geodatabase across organizations and into the field. This course teaches how to plan for and implement geodatabase replication to support multiuser editing workflows and data sharing initiatives. You will learn best practices for protecting the integrity of your production database while meeting the needs of desktop, mobile, and online users.

# ArcGIS Server

These courses are for those who set up and manage ArcGIS Server implementations or who want to develop custom ArcGIS server applications

## **ArcGIS 4: Sharing Content on the Web**

Duration: 2 days (16 hours)

### **Description:**

ArcGIS supports sharing geographic content across multiple platforms so it is accessible to everyone who needs it, when they need it, however they want to access it. This course teaches how to turn your authoritative GIS data, workflows, and maps into ArcGIS services that can be published to ArcGIS Online, ArcGIS for Server, or Portal for ArcGIS; easily embedded in web maps and websites; accessed by desktop, web, and mobile applications; and deployed to servers on secure internal networks. You will learn how to determine which sharing option is appropriate for your needs.

## **Building Web Applications Using the ArcGIS API for JavaScript**

Duration: 2 days (16 hours)

### **Description:**

This course teaches how to use the ArcGIS API for JavaScript to efficiently develop high-performing, engaging web applications that meet the needs of their intended audience. You will learn about the classes available in the API, how to use them in a JavaScript-based web application, and how to incorporate ArcGIS services and ArcGIS Online content to enhance your applications. This course focuses on functionality available with ArcGIS 10.2 and 10.1 services, but many course concepts apply to ArcGIS 10.0 and 9.3.1 services.

## ArcGIS for Server: Site Configuration and Administration

Duration: 3 days (24 hours)

### Description:

Designed specifically for administrators, this course teaches how to successfully install, configure, and manage an ArcGIS for Server system that enables GIS content sharing across the enterprise. You will learn the ArcGIS for Server architecture and practice applying recommended workflows to configure ArcGIS Server sites and manage GIS services, applications, and users. Techniques and best practices to ensure system performance and security are emphasized.

# Remote Sensing

InfoGraph offers introductory, intermediate, and advanced courses in ENVI image analysis software.

## Exploring ENVI

Duration: 4 days (32 hours)

### Description:

Do you need to quickly get up-to-speed on the full-featured functionality offered by ENVI, the premier remote sensing exploitation package? In this course you'll learn much about the core functionality of

ENVI and also work with Feature Extraction, the object-oriented classification workflow. You will also be given an introduction to hyperspectral data analysis that can be used as a stepping-stone for learning about ENVI's advanced hyperspectral analysis capabilities. Data from various multispectral, hyperspectral and radar sensors, including ASTER, AVIRIS, Quickbird, RadarSat, AVHRR, SPOT, Landsat, TMS, and USGS DEM data are used in a mixture of lectures and exercises. In addition, you will be shown ways to extend ENVI using batch processing, Band and Spectral Math, and incorporating your own programs.



## KEY BENEFITS:

- Low instructor-to-student ratio ensures all students get individual attention.
- Hands-on practice using the latest GIS software products.
- Class activities and discussions encourage peer-to-peer learning.
- Training on best practices and recommended workflows from the people who know our GIS products the best.



## GENERAL TRAINING TERMS & CONDITIONS:

- Each training package includes lecture and exercise manuals, use of computers for hands-on exercises, one training data CD, certificate and/or letter of attendance.
- All course materials will be provided in the training venue.
- Standard timing daily is 9 am - 2 pm.



## Food & Beverage

Coffee Break and lunch meals are provided in the training venue.



**For Training consultations, inquiries and registration assistance, please contact InfoGraph Training Team.**

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