

# Esri Training

2016

**Learn. Grow. Lead.**

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Instructor-Led Courses  
Esri Course Catalog





Dear Colleague:

The latest release of ArcGIS brings new visualization capabilities, improved enterprise readiness, and incredible new apps. It transforms how geographic information will be accessed and managed by geographic information system (GIS) professionals, like yourself, and organizations.

Esri instructor-led training provides the foundation you need to learn how to build a strong platform, extend it across your organization, and fully leverage your GIS investment. Courses are available to help you speed up your adoption of new technology; be more productive; and more easily share and collaborate with colleagues, decision makers, and the general public.

Staying current with the latest technology will give you a competitive edge and help you address the social, economic, business, and environmental issues that shape our world.

I encourage you to review Esri's learning opportunities and register for a course today.

Warm regards,

Jack Dangermond

### Find Out More about Esri Training

For the latest class schedules and detailed course descriptions and to register, visit [esri.com/coursecatalog](http://esri.com/coursecatalog).

To talk with an Esri training consultant, call 1-800-447-9778, extension 1-5757.

### International Training

Esri training is offered worldwide through our distributor network. Outside the United States, contact your local Esri distributor for course offerings and class schedules. Find the Esri distributor near you at [esri.com/distributors](http://esri.com/distributors).

### Connect with Esri Training

E-mail: [GIStraining@esri.com](mailto:GIStraining@esri.com)

Web: [esri.com/training](http://esri.com/training)

Twitter: [twitter.com/EsriTraining](https://twitter.com/EsriTraining)

Blog: [esri.com/trainingblog](http://esri.com/trainingblog)

Hands-On Learning Lab

(at Esri events nationwide): [esri.com/holl](http://esri.com/holl)

Free Live Training Seminars: [esri.com/lts](http://esri.com/lts)

# Get Started with ArcGIS

## ArcGIS for Desktop

With ArcGIS® for Desktop, GIS professionals work with apps, including ArcMap™ and ArcGIS Pro, to create authoritative geographic data, maps, tools, and analytical models that can be shared as services. The desktop apps provide powerful capabilities for spatial analysis, 3D modeling, image management, and more.

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## ArcGIS Online

With ArcGIS™ Online, knowledge workers, executives, and the public collaborate and do self-service mapping using desktops, tablets, or smartphones. ArcGIS Online includes rich content and focused apps that add geographic insight to all types of projects.

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## ArcGIS for Server

With ArcGIS for Server, IT and GIS professionals manage, secure, and share geographic content as services that can be consumed in desktop, web, and mobile apps. ArcGIS for Server connects with relational database management systems and supports on-premises, cloud, virtual, and hybrid deployments.

ArcGIS is a complete platform that individuals and organizations use to find, explore, create, and share maps; apply geospatial data, tools, and models to solve problems; collaborate with groups and communities; and deploy geospatial resources whenever and wherever they are needed.

This catalog includes courses for GIS practitioners and non-GIS professionals, administrators and developers, and anyone who needs to use the ArcGIS platform to perform their daily workflows and tasks, enhance projects with geographic context, and create information that leads to better decision making.

## ArcGIS Foundational Courses—Page 8

The four ArcGIS foundational courses are designed to support professionals with diverse GIS experience and workplace responsibilities. Each course emphasizes the best practices and recommended workflows that will prepare learners to be highly productive and get the results they need from the ArcGIS platform.

## Courses for GIS Professionals—Page 9

A GIS professional may wear many hats. Whether you are a one-person GIS team supporting the mapping needs of your entire organization or one of dozens of professionals in a large GIS department, your work involves one or more core ArcGIS workflows.

## Courses for Administrators—Page 16

IT, system, and database administrators have unique learning needs. These courses focus on best practices to manage and secure GIS infrastructure, including data, applications, servers, and users.

## Courses for Developers—Page 18

These courses are for builders of fully geocentric applications and other apps that feature geospatial content.

## Courses on Industry Workflows—Page 19

These courses are for analysts and professionals using ArcGIS to support specific missions and industry applications.

## Instructor-Led Workshops—Page 22

## All Courses by Topic—Page 7

# About Esri Training Options

Esri instructor-led and self-paced training options teach GIS problem-solving skills and best practices to accomplish GIS tasks and workflows. Developed by education specialists with expertise in Esri® products, our courses help thousands of professionals each year.

Instructor-led courses are taught online in real time and at learning centers around the United States. See the map on the inside back cover for locations. Self-paced courses are available from the Esri Training website 24/7.

### Train your team together.

When multiple staff will benefit from the same course, arranging a class to train them together can be the most cost-effective way to prepare for a new project or technology migration. We can send an instructor to your facility, or you

can hold a class at one of our facilities. When team members are geographically dispersed, an instructor-led online class eliminates the need for travel and related expenses.

### Get the most out of your group learning experience.

When you hold a class to train multiple staff together, you can supplement the class with one or more days of client coaching. Client coaching enhances the learning experience by providing extra time to review and practice course concepts in the context of your organization’s specific workflows with an instructor’s guidance.

To discuss arranging a class, call 1-800-447-9778, extension 1-5757, or send an email to [GIStraining@esri.com](mailto:GIStraining@esri.com). To view the latest instructor-led class schedules and self-paced training options, visit [esri.com/coursecatalog](http://esri.com/coursecatalog).

Benefit	Instructor-Led Training	Self-Paced Training
Hands-on software exercises with data	●	● *
Esri software provided for use during class	●	
Use of your local installation of Esri software		●
Software demonstrations showing real-world application of course concepts	●	●
Course workbook (to review and practice concepts and workflows after class)	●	
Taught by certified instructor with expertise in the course subject matter	●	
Real-time interaction with instructor and other students	●	
Opportunity to ask questions during class and get immediate answers	●	
Accessible 24/7 from anywhere		●
Short, focused learning on specific tasks		●
No travel required to attend	● **	●
Certificate of completion awarded	●	●

\* Applies to e-learning courses  
 \*\* Applies to instructor-led online classroom courses

# Plan to Achieve Your Goals

Your organization's workforce is the heart of its business. Individuals execute and teams collaborate to ensure stable operations, innovative products, and excellent service.

Helping your workforce develop the knowledge and skills they need to perform at a high level is a proven approach to achieving strategic business objectives. Investments in employee skills development pay off with improved productivity, better customer service, higher morale, and reduced turnover.

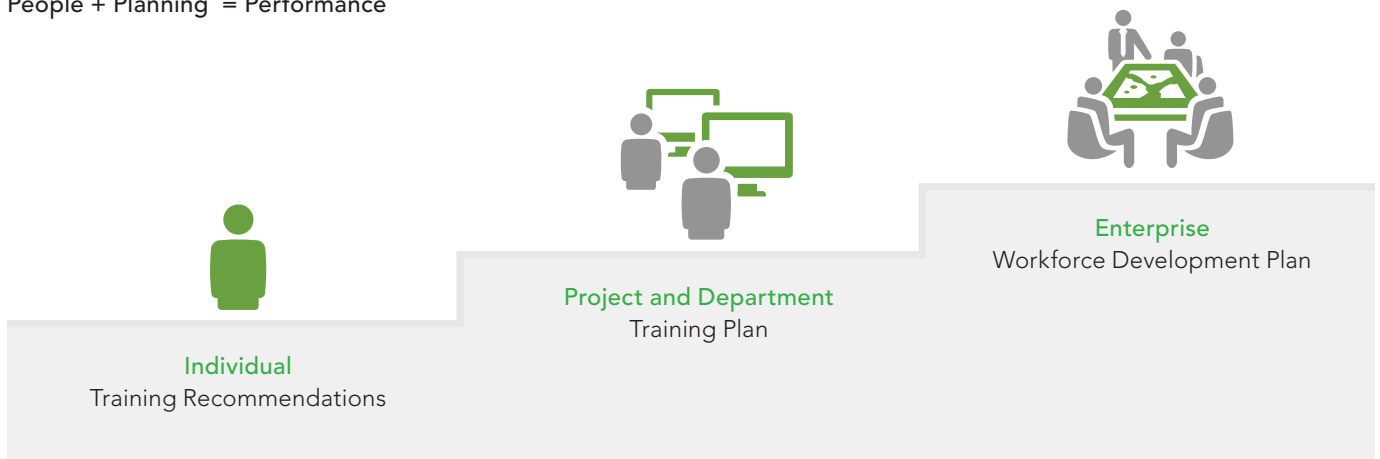
Esri training consultants and specialists are available to partner with you to plan immediate, short-term, and long-term geospatial skills development for your workforce. We specialize in providing

- Targeted course recommendations to support an individual's learning needs.
- Six-month to one-year training plans for teams and upcoming projects.
- Workforce development plans to ensure the right knowledge is in place for future success.

## The Rewards of Workforce Development

- Higher productivity
- Fewer errors
- Better customer service
- Lower turnover
- Broader institutional knowledge

People + Planning = Performance

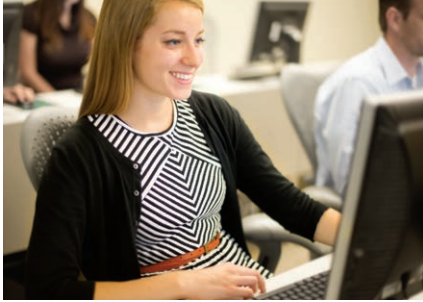


To talk with us about your organization's training needs, call 1-800-447-9778, ext. 1-5757, or email [GIStraining@esri.com](mailto:GIStraining@esri.com).

## Esri Training Pass—Because Convenience Matters

With the Esri Training Pass, purchasing and managing GIS training has never been easier. Your organization purchases training days in advance and redeems them for courses and classes as needed. The Training Pass is available for single-year and multiyear terms and is included on the Esri Federal GSA Schedule.

Learn more about the Training Pass at [esri.com/trainingpass](https://esri.com/trainingpass).



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“The information presented and the delivery of content were relevant to real-world applications. Great to participate in a classroom environment with discussion about scenarios and questions, allowing feedback and collaboration.”

Atonja Allen  
ArcGIS 3: Performing Analysis

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## Course Design

### Instructor-led format improves user success.

Esri instructor-led courses take an immersive, experiential approach to learning. Their design incorporates proven adult-learning principles and focuses on interaction and skills application to ensure that learners acquire relevant and directly applicable workplace knowledge and skills.

The course format includes the following:

- Interactive discussions with learners contributing real-world experiences
- Demonstrations and hands-on individual exercises
- Facilitated group exercises
- Activities and problem-solving scenarios that encourage peer-to-peer learning

Interactive learning is a proven approach that works well in both traditional and online classrooms. In an Esri instructor-led online course, learners participate in small group activities in virtual breakout rooms, including writing on group whiteboards, chatting, polling, and probing. Learners can interact with each other and the instructor during class demonstrations and exercises. Instructors can even shadow learners' computers to monitor progress during individual exercises or to check in on groups and facilitate discussion.

### High-caliber instructors are committed to learner success.

All Esri instructors have achieved Esri technical certification and CompTIA CTT+ certification. CompTIA CTT+ is an international certification that covers core instructor skills, including preparation, presentation, communication, facilitation, and evaluation, in both a traditional and online classroom environment.

Esri instructors have the flexibility to adapt how they present course material based on the audience composition, skill level, and professional interests of each class. The course format stretches their creativity and teaching skills in a way that's exciting and beneficial for learners.

### Self-Paced Format Supports Independent, Flexible Learning.

Esri self-paced e-learning options are designed to supplement and extend instructor-led courses; provide focused training for specific GIS tasks; and support those who need immediate, just-in-time training. Our e-learning course design features interactive conceptual material, demonstrations, and hands-on exercises designed to help learners immediately apply concepts and reinforce skills. To view available courses, go to [esri.com/coursecatalog](https://esri.com/coursecatalog).

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# ArcGIS Foundational Courses

Designed to meet the learning needs of professionals whose GIS experience ranges from zero to extensive, the foundational courses cover core ArcGIS platform capabilities and widely used workflows. Learners will master fundamental GIS concepts; gain the hands-on practice needed to efficiently apply ArcGIS best practices; produce reliable results from spatial analysis projects; and transform authoritative maps, data, and ArcGIS tools into services that can be easily shared with anyone on any device.

## ArcGIS 1: Introduction to GIS

Two days (16 hours)—\$1,130

### Overview

This course introduces GIS concepts and ArcGIS tools used to visualize real-world features, discover patterns, obtain information, and communicate that information to others. You will create GIS maps and explore the data behind the maps as you work with ArcGIS to master the fundamental concepts that underlie GIS technology.

### Who Should Attend

Individuals with no prior GIS education or workplace experience with GIS

### Learn How To

- Quickly create and share a GIS map.
- Find and organize geographic data and other content for a mapping project.
- Accurately display features on a GIS map and access information about them.
- Perform spatial analysis to answer questions and create new information.
- Share GIS maps and analysis results so they are easily accessible to desktop, web, and mobile device users.

Prerequisite: None

## ArcGIS 2: Essential Workflows

Three days (24 hours)—\$1,695

### Overview

In this course, you will acquire skills that will prepare you to perform the most common ArcGIS workflows. Primarily using the ArcMap application of ArcGIS for Desktop and ArcGIS Online, you will explore, manage, and analyze geographic data and create informative maps. The course covers techniques to effectively share your ArcGIS work with decision makers, colleagues, and the public.

### Who Should Attend

Individuals with an introductory-level knowledge of GIS concepts and limited ArcGIS experience

### Learn How To

- Combine data from different sources to create accurate, informative maps.
- Organize, create, and edit geographic data to maintain its accuracy.
- Design an attractive page layout for maps that will be printed.
- Apply a standard workflow to analyze GIS data and solve spatial problems.
- Share maps and analysis results so they are accessible on multiple devices.

Prerequisite: ArcGIS 1: Introduction to GIS

## ArcGIS 3: Performing Analysis

Two days (16 hours)—\$1,130

### Overview

This course teaches a standard workflow you can apply to any spatial analysis project. Working with a variety of ArcGIS tools and data, you will perform different types of analyses to efficiently create reliable results that support informed decision making. This course is taught using ArcGIS for Desktop Advanced, and some course exercises use tools provided in the ArcGIS Spatial Analyst extension.

### Who Should Attend

GIS analysts, specialists, and others who manage or conduct spatial analysis projects

### Learn How To

- Choose appropriate data, methods, and tools to plan, execute, and document a given analysis project.
- Automate analysis tasks using geoprocessing models.
- Create a weighted suitability model to select the optimal location for a new site.
- Apply spatial statistics to examine distribution patterns and identify hot spots.
- Model temporal data to analyze and visualize change over time.
- Share analysis results so they are accessible and repeatable.

Prerequisite: ArcGIS 2: Essential Workflows

## ArcGIS 4: Sharing Content on the Web

Three days (24 hours)—\$1,695

### Overview

Using ArcGIS, you can easily share geographic content so it is accessible to everyone who needs it, when they need it, and however they want to access it. This course teaches how to publish your organization's authoritative GIS data, maps, and tools as ArcGIS services that can be discovered and used on desktops, the web, and mobile devices.

### 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

### Learn How To

- Determine which sharing option is appropriate for your needs.
- Author and publish map services to share your authoritative GIS data.
- Publish feature services to enable data editing over the web.
- Create and publish image services to provide fast access to imagery.
- Publish geoprocessing services to share analysis workflows and results.
- Share GIS resources as stand-alone services and in web maps and apps.

Prerequisite: ArcGIS 2: Essential Workflows



## In the Spotlight

### ArcGIS Pro: Essential Workflows

Three days (24 hours)—\$1,695

#### Overview

In this course, you will explore ArcGIS Pro capabilities as you become comfortable working with this new desktop application. The course emphasizes common GIS workflows and best practices to map, manage, analyze, and share GIS data and resources. You will acquire the essential skills you need to be productive with ArcGIS Pro.

#### Who Should Attend

Individuals with an introductory-level knowledge of GIS concepts and limited ArcGIS experience

#### Learn How To

- Combine data from different sources to create accurate, informative maps.
- Organize, create, and edit geographic data to keep it accurate and up to date.
- Symbolize map features to support 2D and 3D visualization.
- Design an attractive page layout for maps that will be printed.
- Analyze GIS data to solve spatial problems and create new information.
- Share maps, analysis results, and geoprocessing models so they are easily accessible to colleagues, decision makers, or the public.

Prerequisite: ArcGIS 1: Introduction to GIS

### Introduction to ArcGIS Pro for GIS Professionals

Two Days (16 hours)—\$1,130

#### Overview

ArcGIS Pro, the latest application included with ArcGIS 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 interface and integrated 2D and 3D capabilities, ArcGIS Pro will streamline the way you do your GIS work. This course will prepare you to be productive right away with ArcGIS Pro and efficiently complete different tasks related to mapping, editing, geoprocessing, and analysis.

#### Who Should Attend

Experienced ArcGIS for Desktop (ArcMap) users

#### Learn How To

- Create an ArcGIS Pro project and assign tasks.
- Import maps created in ArcMap and access both local and online data.
- Efficiently edit features and attributes.
- Perform geoprocessing and analysis tasks using tools and models.
- Create 3D data and 3D scenes, and convert a 2D map to a 3D scene.
- Create multiple layouts from a single map.

Prerequisite: ArcGIS 2: Essential Workflows

### Putting ArcGIS to Use Across Your Organization

Three days (24 hours)—\$1,695

#### Overview

The ArcGIS platform enables individuals throughout an organization to discover, use, create, and share authoritative data, maps, and apps. The result is higher productivity, deeper insight, and more informed decision making. This course is a comprehensive introduction to the ArcGIS platform and its capabilities. You will learn and apply workflows to manage data, perform spatial analysis, and share actionable information using maps and apps that are accessible to desktop, online, and mobile users.

#### Who Should Attend

Managers, analysts, administrators, developers, and others who need a broad understanding of the ArcGIS platform

#### Learn How To

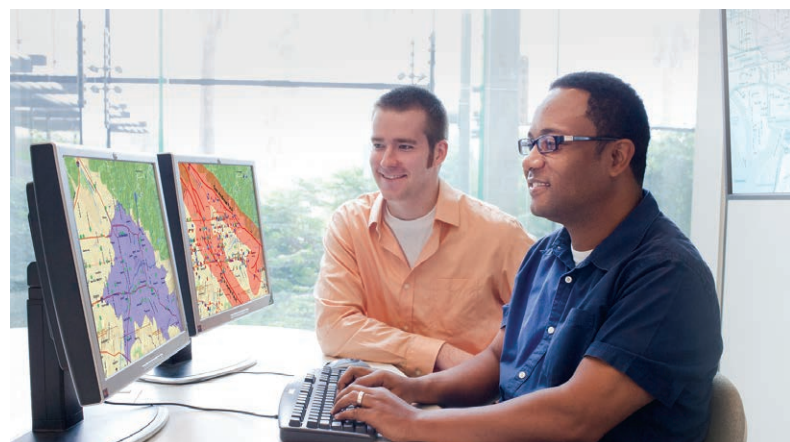
- Visualize data on a map to gain insight and identify patterns and trends.
- Analyze data and create a map to communicate your results.
- Organize and share useful data, maps, and apps inside and outside your organization using an ArcGIS portal.
- Enable self-service mapping and data discovery across your organization to increase productivity, reduce duplication of effort, and eliminate data silos.
- Maintain situational awareness by configuring web apps and dashboards to collect and display real-time data from the field.

Prerequisite: Experience with Microsoft Excel and Windows-based software for basic file management and web browsing is required.

## A Small Time Investment Yields a Lot of Learning

Esri live training seminars offer one hour of real-time, expert GIS training streamed to your desktop or tablet. Seminars are interactive and free—you can request email reminders and add seminars directly to your digital calendar.

All seminars are recorded in case you miss one. See the schedule of upcoming seminars at [esri.com/lts](http://esri.com/lts).



## 3D and Geodesign

### Building 3D Cities Using Esri CityEngine

Three days (24 hours)—\$1,695

#### Overview

Esri CityEngine® software uses a rule-based approach to help you efficiently produce highly realistic 3D models. This course introduces the CityEngine 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

#### Learn How To

- Create an Esri CityEngine 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.

Prerequisite: None



### Practicing Geodesign Using ArcGIS

Two days (16 hours)—\$1,130

#### Overview

Geodesign provides a framework and robust tools that support rapid evaluation of design alternatives and their impacts. This course teaches recommended planning and design workflows to iteratively model, visualize, and assess the impact of individual decisions on an overall design plan. Some course exercises use the ArcGIS Spatial Analyst and ArcGIS 3D Analyst™ extensions.

#### Who Should Attend

GIS analysts and other professionals working in urban planning, design, facilities management, or a related field who need to apply geodesign techniques

#### Learn How To

- Apply a GIS-driven workflow to help guide a design project from start to finish.
- Assemble and prepare data for use in GIS models.
- Create suitability models that consider multiple criteria appropriate for a given project.
- Use rapid iteration to visualize and evaluate alternative design plans.
- Produce and compare impact maps and reports for each design plan.

Prerequisite: ArcGIS 2: Essential Workflows

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“Really enjoyed the scenarios used in the exercises; provided a much greater awareness of the usefulness of ArcGIS.”

Claire Lyte-Graham  
ArcGIS 2: Essential Workflows

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“It was a great experience with the combination of hands-on exercises, presentations, and lecture.”

Michele Snow  
ArcGIS 1: Introduction to GIS

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“I really enjoyed the class and felt that the course content was helpful in gaining a working knowledge of ArcGIS. The workbook provided was an excellent source of learning and easy to follow along.”

Stephen King  
ArcGIS 2: Essential Workflows

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# Analysis and Geoprocessing

## Image Analysis with ArcGIS

Two days (16 hours)—\$1,130

### Overview

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.

### Who Should Attend

GIS professionals, image analysts, and others who work with imagery for mapping and analysis should attend. Those working in the forestry, hydrology, environmental management, urban planning, defense, intelligence, and mining industries may find the course of particular benefit.

### Learn How To

- Apply dynamic raster processing functions to enhance raster display, prepare data for analysis, and quickly create multiple products from a single data source.
- Create a time-series mosaic dataset to visually identify and document areas of change.
- Support change detection, risk assessment, and other types of analysis by performing unsupervised, supervised, and object-oriented classification.
- Assess the accuracy of classification results.

Prerequisite: ArcGIS 2: Essential Workflows or Using ArcGIS for Geospatial Intelligence

## Introduction to Geoprocessing Scripts Using Python

Three days (24 hours)—\$1,695

### Overview

Python scripts reduce the time spent on complex or repetitive tasks, enabling GIS staff to be more productive. This course teaches how to create Python scripts to automate tasks related to data management, feature editing, geoprocessing and analysis, and map production using ArcGIS. You will also learn how to share your Python scripts so your key GIS workflows are accessible to others.

### Who Should Attend

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

### Learn How To

- Choose a Python scripting environment that meets your needs.
- Incorporate cursors, describe objects, and list objects into scripts to manage and update data.
- Use ArcPy™ classes and geometry objects to create and update features and perform geoprocessing operations.
- Use the ArcPy mapping module to automate map document and layer management.
- Apply techniques to ensure valid script syntax and error handling.
- Create custom script tools and geoprocessing packages to share your scripts.

Prerequisites: Yes, see website for details.

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“This was one of the best courses I’ve taken with Esri. The instructor was engaging, and the material was very relevant to what I expected.”

James R. Schell

Implementing Versioned Workflows in a Multiuser Geodatabase

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“Enjoyed the course and look forward to the next one. Very cool experience with my first online course through Esri. Was great.”

Wade Bowman

ArcGIS 1: Introduction to GIS

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“I’ve taken intro to ArcGIS classes before, and so far, this is definitely the best, and I’ve come away with more information than any previous one before. Much more practical in the information this time around.”

Jason McGovern

ArcGIS 1: Introduction to GIS

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“I learned a lot in this class and will be able to use it where I work. I like the ability to take the coursework home with data to work on issues that I may have forgotten over time.”

Aaron Vigil

ArcGIS 1: Introduction to GIS

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# Cartography and Map Production

## Designing Maps with ArcGIS

Two days (16 hours)—\$1,130

### Overview

This course teaches how to create attractive maps that are easy to interpret and properly designed for their audience and delivery medium. You will learn how to apply a standard cartographic workflow to efficiently produce high-quality maps for print and online use.

### Who Should Attend

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

### Learn How To

- Plan a cartographic project.
- Choose appropriate data to support cartographic needs.
- Create effective symbology, map elements, and layout designs for a given map project.
- Create labels and annotation that are easy to read by the map's intended audience.
- Produce maps for print and web delivery.

Prerequisite: ArcGIS 2: Essential Workflows

## Introduction to Esri Production Mapping

Five days (40 hours)—\$2,825

### Overview

In this course, you will acquire the necessary skills to use and configure Esri Production Mapping. The course covers how to enhance productivity by standardizing feature collection, editing, and data management. You will learn how to use ArcGIS Data Reviewer for Desktop to find, track, and correct spatial and attribute errors in GIS data. You will work with Esri Production Mapping tools to create standard map products and manage cartographic production. Using ArcGIS Workflow Manager, you will configure workflows to streamline your repeatable production tasks.

### Who Should Attend

GIS specialists, technicians, spatial data managers, project managers, and others who need to manage and publish accurate data and cartographic products using standardized and repeatable workflows

### Learn How To

- Extend and configure geodatabase validation with the product library.
- Efficiently load data using the Data Loader tool.
- Edit and attribute features using Esri Production Mapping.
- Perform automated and visual data validation checks using ArcGIS Data Reviewer for Desktop.
- Configure and use templates to create standard cartographic products.
- Store, access, manage, and configure the product library for cartographic production.
- Streamline workflows using ArcGIS Workflow Manager.

Prerequisites: Yes, see website for details.

## Cartography with Esri Production Mapping

Two days (16 hours)—\$1,130

### Overview

Esri Production Mapping provides cartographic tools for managing map products; creating high-quality, high-volume map products; and generating reference grids based on product specifications. In this course, you will learn how to create and manage map documents in Product Library, symbolize data with Views and the Visual Specifications tool, work with cartographic representations, and create dynamic tables in the layout.

### Who Should Attend

GIS technicians, spatial data managers, and project managers who need to create cartographic products using Esri Production Mapping

### Learn How To

- Manage cartographic production with Product Library.
- Create cartographic data such as grids and graticule layers.
- Symbolize data using Views and the Visual Specifications tool.
- Edit cartographic features using representations.
- Create and manage layouts and elements such as dynamic tables.
- Print, publish, and export cartographic products.
- Maintain cartographic products.

Prerequisites: Yes, see website for details.

## Introduction to Esri Defense Mapping

Five days (40 hours)—\$2,825

This course is typically offered as a client-site class.

### Overview

Esri Defense Mapping is used to produce high-volume defense topographic databases and cartographic products. This course introduces you to tools that enable specialized defense data collection and attribution, database maintenance, data validation, and the production of standardized cartographic products. You will learn how to use the support files provided with Esri Defense Mapping, including defense geodatabase models, topologies, feature templates, data validation rules, cartographic representations, and map templates, to create defense products to specification.

### Who Should Attend

Experienced ArcGIS users who need to produce data and maps that comply with defense or military specifications and standards

### Learn How To

- Use Esri Defense Mapping support files to streamline defense database and map production workflows.
- Extract features to defense specification.
- Validate defense databases using predefined batch jobs.
- Create defense cartographic products to defense specification.
- Streamline and track workflows with ArcGIS Workflow Manager.

Prerequisites: Yes, see website for details.

# Cartography and Map Production (continued)

## Introduction to ArcGIS for Aviation: Charting

Three days (24 hours)—\$1,695

### Overview

This course teaches how to produce and maintain aeronautical charts inside an Aeronautical Information Exchange Model (AIXM) 4.5/5.1-based Aeronautical Information System (AIS) using ArcGIS for Aviation: Charting. You will learn about data management tools as well as more advanced annotation and editing tools to support the aeronautical chart production process. Techniques for symbolizing data, working with geographic representations, and creating dynamic text and tables in a layout are also covered.

### Who Should Attend

Individuals familiar with aeronautical principles and charting who create, edit, or maintain an AIS or produce aeronautical charts from a database

### Learn How To

- Set up the AIS database.
- Edit and attribute aeronautical features.
- Create and manage cartographic features for chart production.
- Use the aviation annotation editing tools.
- Build and configure smart aviation surround elements.
- Track and review changes in the database with Change Reporter and ArcGIS Data Reviewer for Desktop.

Prerequisite: ArcGIS 2: Essential Workflows

## Configuring ArcGIS for Aviation: Charting

Two days (16 hours)—\$1,130

### Overview

This course teaches how to configure ArcGIS for Aviation: Charting to produce and maintain aeronautical charts inside an Aeronautical Information Exchange Model (AIXM) 4.5/5.1-based Aeronautical Information System (AIS). You will learn how to set up the production environment and design grids.

### Who Should Attend

Individuals familiar with aeronautical principles and charting who will be involved with supporting an aeronautical charting system using ArcGIS for Aviation: Charting

### Learn How To

- Set up extraction queries for cartographic feature creation.
- Build aeronautical annotation feature classes.
- Configure the Visual Specifications tool for charting products.
- Configure and manage masking rules.
- Create batch jobs for quality control.
- Configure the change detection process for ArcGIS Data Reviewer for Desktop.
- Configure job types and workflows for ArcGIS Workflow Manager.

Prerequisite: Introduction to ArcGIS for Aviation: Charting

## Introduction to ArcGIS for Maritime: Charting

Three days (24 hours)—\$1,695

### Overview

ArcGIS for Maritime: Charting is a data management and cartographic production application that combines cartographic editing tools, database models, nautical symbols and styles, data editing tools, validation rules, and workflow management components to enable a streamlined data editing and chart production environment for nautical users. In this course, you will learn how to use ArcGIS for Maritime: Charting to produce and maintain standards-compliant S-57 Electronic Navigational Charts (ENCs).

### Who Should Attend

Individuals familiar with nautical standards who will be involved in creating and maintaining S-57-based ENCs from a database

### Learn How To

- Load nautical source data.
- Create a new ENC product.
- Compile different data types in a staging database.
- Edit and attribute S-57 feature objects.
- Correct data with validation checks.
- Export and publish ENCs.
- Maintain ENC products with updates.

Prerequisites: Yes, see website for details.

## Cartography with ArcGIS for Maritime: Charting

Three days (24 hours)—\$1,695

### Overview

ArcGIS for Maritime: Charting is a data management and cartographic production application that combines cartographic editing tools, database models, nautical symbols and styles, S-57 data editing tools, validation rules, and workflow management components to enable a streamlined data editing and chart production environment for nautical users. This course teaches how to create, cartographically finish, and maintain a nautical paper chart product from start to finish.

### Who Should Attend

Individuals familiar with nautical charts who will be involved in producing and maintaining nautical paper charts with ArcGIS for Maritime: Charting

### Learn How To

- Manage map documents that contain multiple data frames.
- Generate reference grids.
- Manage labels and create annotation.
- Create cartographic features and perform cartographic edits.
- Manage page layout, surround elements, and marginalia.
- Create a source diagram.
- Export to various raster formats.
- Maintain a paper chart product.
- Create a chartlet.

Prerequisite: Yes, see website for details.

# Geodata Production and Editing

## Editing and Maintaining Parcels Using ArcGIS

Two days (16 hours)—\$1,130

### Overview

This course teaches techniques to efficiently store, edit, and ensure the accuracy of land records data. Using the ArcGIS parcel fabric and Local Government Information Model, you will learn recommended workflows to perform many common parcel editing tasks.

### Who Should Attend

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

### Learn How To

- Apply the Local Government Information Model to an existing parcel fabric to enable automated editing workflows.
- Join new parcels to an existing parcel fabric, split and merge parcels, adjust boundary lines, and create a new subdivision.
- Migrate computer-aided design (CAD) data to the parcel fabric and evaluate accuracy.
- Create a subdivision from CAD data.

Prerequisite: ArcGIS 2: Essential Workflows

## Editing Data with ArcGIS for Desktop

Two days (16 hours)—\$1,130

### Overview

To produce GIS maps and analysis results that support informed decision making, accurate data is essential. This course teaches methods to accurately create and maintain 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.

### Who Should Attend

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

### Learn How To

- Apply a standard editing workflow to manage updates to your GIS database.
- Efficiently create and edit feature geometry and attributes.
- Solve common data alignment issues.
- Maintain accurate spatial relationships among features using topology.

Prerequisite: ArcGIS 2: Essential Workflows

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"I like the shared interface and ability to annotate the drawings and chat features. I think the overall experience is similar to what you would get in a live classroom. Good job!"

Jon Berg

ArcGIS 2: Essential Workflows

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## Data Editing with Esri Production Mapping

Two days (16 hours)—\$1,130

### Overview

This course teaches how to increase data production efficiency and maintain high-quality standards using Esri Production Mapping, an extension to ArcGIS for Desktop. Working with data in a geodatabase, you will learn how to use Esri Production Mapping editing tools to extract new features and maintain existing features to a specification. This course explains the use of Esri Production Mapping to edit features and familiarizes you with the configuration tasks needed for implementation.

### Who Should Attend

GIS technicians, spatial data managers, and project managers who are responsible for updating and maintaining data to a standard using Esri Production Mapping

### Learn How To

- Use the tools in Esri Production Mapping to extend ArcGIS for Desktop editing workflows.
- Configure and use Product Library to enhance geodatabase validation.
- Batch-load data into a production database.
- Streamline ArcGIS for Desktop workflows using Task Assistant Manager.

Prerequisite: ArcGIS 2: Essential Workflows

## Quality Control Using ArcGIS Data Reviewer for Desktop

Two days (16 hours)—\$1,130

### Overview

This course teaches how to use ArcGIS Data Reviewer 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. Techniques to maintain a historical record of your quality control review and methods for reporting your results are also covered.

### 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 Desktop
- Anyone working with Esri Production Mapping, Esri Defense Mapping, or a stand-alone license of ArcGIS Data Reviewer for Desktop

### Learn How To

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

Prerequisite: ArcGIS 2: Essential Workflows

## Geodata Production and Editing (continued)

### Understanding ArcGIS Workflow Manager

Three days (24 hours)—\$1,695

#### Overview

This course introduces you to the ArcGIS Workflow Manager extension, its architecture and available configuration options, and the importance of job management in your organization. You will learn how to use the tools included with ArcGIS Workflow Manager and how to configure the system to meet your business requirements.

#### Who Should Attend

Managers and others who want to develop and enforce standard, repeatable GIS workflows within their organization using ArcGIS Workflow Manager

#### Learn How To

- Describe and set up database and system tables.
- Query, create, assign, locate, and edit jobs.
- Execute workflows and track job status and feature modification history.
- Set up the ArcGIS Workflow Manager security model.
- Model your business processes into ArcGIS Workflow Manager workflows.
- Publish ArcGIS Workflow Manager services and deploy web viewers.

Prerequisite: ArcGIS 1: Introduction to GIS

### Working with CAD Data in ArcGIS for Desktop

One day (8 hours)—\$565

#### Overview

Like GIS data, computer-aided design (CAD) data is commonly used in design, engineering, and planning workflows. In this course, you will learn how to efficiently 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.

#### Who Should Attend

- GIS specialists, technicians, data managers, and other experienced ArcGIS users
- Experienced CAD users who have basic ArcGIS skills

#### Learn How To

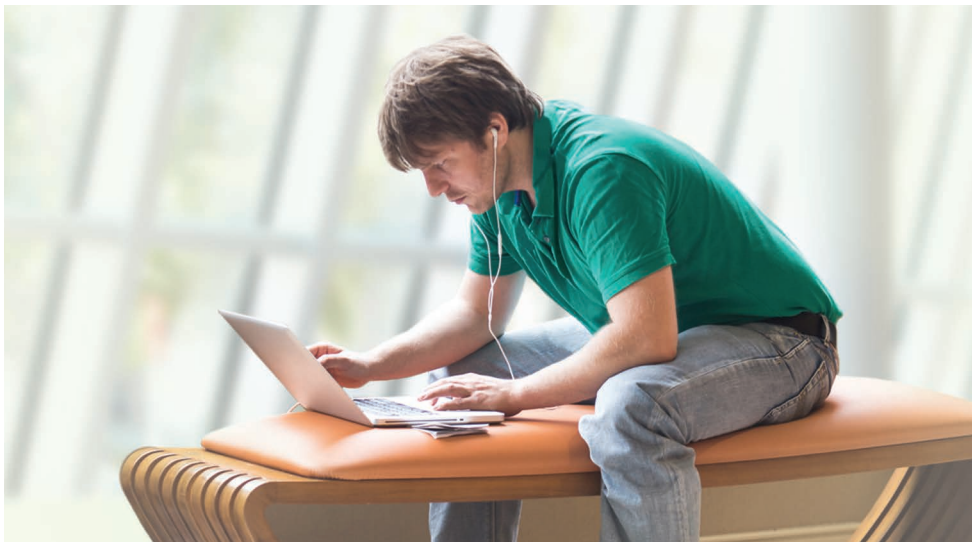
- Accurately display and symbolize CAD data in ArcMap.
- Convert a CAD feature class to a geodatabase feature class.
- Prepare geodatabase feature classes for export to a complex CAD drawing file that contains attributed CAD entities.
- Automate common CAD workflows.

Prerequisite: ArcGIS 2: Essential Workflows

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# Geodata Management

## Building Geodatabases

Three days (24 hours)—\$1,695

### Overview

Master 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 in ArcGIS. Course concepts apply to file-based and multiuser ArcSDE® geodatabases. This course is taught using ArcGIS for Desktop Advanced.

### 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

### Learn How To

- Access GIS data stored in file-based geodatabases, multiuser geodatabases, and GIS servers.
- Create an appropriate geodatabase structure to organize data for efficient storage, display, and editing.
- Add rules and behaviors to ensure the spatial and attribute integrity of geographic data.
- Jump-start geodatabase design using a template data model.
- Create a geodata service to share a geodatabase with desktop, web, and mobile users.

Prerequisite: ArcGIS 2: Essential Workflows

## Deploying and Maintaining a Multiuser Geodatabase

Two days (16 hours)—\$1,130

### Overview

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

### Who Should Attend

Spatial database administrators and GIS data managers

### Learn How To

- Install ArcSDE technology and configure it for your relational database management system.
- Create and connect to a multiuser geodatabase.
- Efficiently load and update data in a multiuser geodatabase.
- Configure storage settings to support your organization's data management workflows.
- Set up user roles and permissions to provide secure data access.
- Apply best practices to optimize geodatabase performance.

Prerequisite: ArcGIS 2: Essential Workflows

## Implementing Versioned Workflows in a Multiuser Geodatabase

Three days (24 hours)—\$1,695

### Overview

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.

### Who Should Attend

GIS database managers and administrators

### Learn How To

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

Prerequisites: Yes, see website for details.

## Distributing Data Using Geodatabase Replication

Two days (16 hours)—\$1,130

### Overview

Geodatabase replication is a powerful way to extend access to GIS data stored in a multiuser 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.

### Who Should Attend

GIS database managers and administrators who need to incorporate geodatabase replication into their organization's business and versioned editing workflows

### Learn How To

- Determine the number and type of replicas needed to support your organization's GIS workflows and applications.
- Use database management system (DBMS) queries and ArcGIS tools to create and manage replicas.
- Plan and implement an efficient synchronization strategy for your data distribution architecture.

Prerequisites: Yes, see website for details.



# Web and Server Management

## ArcGIS for Server: Site Configuration and Administration

Three days (24 hours)—\$1,695

### Overview

This course teaches how to successfully install, configure, and manage an ArcGIS for Server system that enables GIS content sharing across the enterprise or on the web. You will explore the ArcGIS for Server architecture and apply recommended workflows to configure ArcGIS Server sites and manage GIS services, applications, data, and users. Techniques and best practices to ensure performance, security, and reliability are emphasized.

### Who Should Attend

Information technology (IT) administrators, system administrators, GIS web administrators, and others who install, manage, or support an ArcGIS for Server system

### Learn How To

- Successfully install ArcGIS for Server and create an ArcGIS Server site.
- Configure the ArcGIS Web Adaptor component to integrate your ArcGIS server with a web server.
- Publish services that have the capabilities required for your applications.
- Plan, create, and update a cache for high-performing map and image services.
- Tune and monitor services to ensure high performance.
- Implement security for your site and services that meets the needs of your organization.

Prerequisite: ArcGIS 4: Sharing Content on the Web

## Deploying Portal for ArcGIS

Two days (16 hours)—\$1,130

### Overview

Learn recommended workflows and best practices to install, configure, and deploy Portal for ArcGIS to meet your organization's need for private, secure geospatial content sharing. This course introduces Portal for ArcGIS components and architecture models that support web GIS workflows. Techniques to ensure portal security and high availability are covered.

### Who Should Attend

ArcGIS for Server administrators who need to set up and configure a private organizational portal that provides secure access to geospatial data, maps, and apps

### Learn How To

- Install, configure, and license Portal for ArcGIS software.
- Create and manage user accounts and configure enterprise authentication.
- Create enterprise groups to efficiently organize and manage access to portal content.
- Publish ArcGIS services to validate the portal configuration.
- Integrate a portal with an ArcGIS Server site to add capabilities and simplify user access and content publishing workflows.
- Apply techniques to optimize the performance of your organization's portal.

Prerequisite: ArcGIS for Server: Site Configuration and Administration

## System Architecture Design Strategies

Three days (24 hours)—\$1,695

### Overview

This course covers GIS architecture design strategies and infrastructure architecture alternatives that support successful enterprise operations. You will learn comprehensive guidelines for planning and selecting a system solution that meets your organization's needs. This course also covers performance validation and system capacity planning techniques for enterprise GIS deployments.

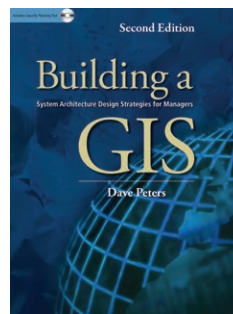
### Who Should Attend

- Senior architecture consultants and software architects who need to increase their knowledge of enterprise GIS system design
- GIS managers, project managers, and software developers who need to understand system architecture and hardware capacity planning criteria
- Information technology (IT) and system administrators and consultants who need to understand, identify, and troubleshoot performance problems with existing GIS environments

### Learn How To

- Identify and define user workflow requirements for an enterprise GIS.
- Describe software deployment patterns appropriate for each identified user workflow.
- Recognize system design factors that impact GIS software performance and scalability.
- Identify network bandwidth requirements and remote client performance expectations.
- Describe platform architecture deployment patterns for meeting your system's nonfunctional deployment requirements.
- Select platform technology that will satisfy ArcGIS performance and capacity needs.
- Apply best practices for incorporating security throughout system design and deployment.
- Identify a target IT platform and network solutions that satisfies your peak system performance needs.

Prerequisites: Yes, see website for details.



Written by *System Architecture Design Strategies* course author Dave Peters, this Esri Press book complements the course in helping organizations efficiently implement, integrate, and scale up a GIS.

# Application Development

## Introduction to Web Development Using ArcGIS API for JavaScript

Three days (24 hours)—\$1,695

### Overview

This course reviews basic concepts of web development and introduces ArcGIS API for JavaScript. You will explore application program interface (API) classes, widgets, and available functionality as you work with high-performing web applications that incorporate ArcGIS content and services. You will gain experience with the API by querying, visualizing, and analyzing 2D and 3D data.

### 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

### Learn How To

- Develop and test web application functionality based on ArcGIS API for JavaScript.
- Programmatically render ArcGIS services to support map visualization needs.
- Include capabilities for application end users to view 2D maps and 3D scenes, query map layers, and perform spatial analysis and geoprocessing operations.

Prerequisites: Yes, see website for details.

## Developing Web Apps with ArcGIS API for JavaScript

Three days (24 hours)—\$1,695

### Overview

This course teaches how to use ArcGIS API for JavaScript to efficiently build 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.

### Who Should Attend

Experienced JavaScript developers who want to create applications that include ArcGIS services and functionality

### Learn How To

- Build, test, and deploy a web application using ArcGIS API for JavaScript.
- Use the ArcGIS platform to incorporate ready-to-use content and online services that allow end users to visualize, query, and edit data.
- Configure API components to meet user requirements.
- Apply best practices to ensure high performance and proper communication between the client application and web server.

Prerequisites: Yes, see website for details.

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"I especially liked the final project tying everything together. The material in the final project section first lays out a skeletal exercise followed by the same exercise with more detailed instructions. Very helpful!"

Gael Cunningham

Building Geodatabases

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## Industry-Focused Courses

These courses teach geospatial concepts and ArcGIS best practices in the context of industry examples and data.

### Geospatial Concepts for Intelligence Operations

Three days (24 hours)—\$1,695

#### Overview

This course teaches foundational geospatial concepts that apply to data, maps, and analysis workflows widely used for intelligence production, planning, and operations. You will work with the ArcGIS platform as you explore techniques to efficiently visualize, create, and analyze geospatial data for use in intelligence. This course is taught using ArcGIS for Desktop Advanced, and some course exercises use tools provided in the ArcGIS Spatial Analyst extension.

#### 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

#### Learn How To

- Identify appropriate geospatial data for visualization and analysis.
- Organize, create, and manage geospatial data stored in a geodatabase.
- Accurately and effectively display a variety of content, including imagery, on a map.
- Create products for dissemination that support mission planning and intelligence operations.

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

### Using ArcGIS for Geospatial Intelligence

Three days (24 hours)—\$1,695

#### 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

Entry- to mid-level professionals in the military, intelligence, and national security communities who specialize in intelligence planning, geospatial intelligence, all-source intelligence, terrain analysis, imagery exploitation, intelligence production, or collection management

#### Learn How To

- Evaluate and prepare geospatial data for use in geospatial intelligence (GEOINT) fusion, analysis, and intelligence products.
- Perform different types of geospatial analyses (including terrain, raster based, viewshed, and temporal) to evaluate potential threats and identify patterns, hot spots, and clusters.
- Evaluate suitability of multiple locations for tactical operations.
- Create operational map products that include military grids, operational overlays, and military standard symbology.
- Disseminate geospatial products and information using map packages, GeoPDFs, web maps, and KML/KMZ files.

Prerequisite: Geospatial Concepts for Intelligence Operations

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“This is a good introductory class; I would recommend it to anyone who is starting off or has minimal experience with the software.”

Troy G. McNall  
ArcGIS 2: Essential Workflows

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## Industry-Focused Courses (continued)

### Portal for ArcGIS: User Workflows (for Defense and Intelligence)

Two days (16 hours)—\$1,130

#### Overview

Portal for ArcGIS provides all the productivity and collaboration benefits of a web GIS, while meeting an organization's requirement for an on-premises or private cloud infrastructure. This course prepares you to efficiently work with content on your organization's portal to support intelligence production and dissemination. Through realistic scenarios and hands-on exercises, you will master the essentials of discovering, using, making, and sharing web maps, apps, and other geospatial content.

#### Who Should Attend

Professionals specializing in all-source intelligence, imagery analysis, open-source intelligence analysis, signals intelligence analysis, geospatial analysis, geospatial engineering, or mission planning

#### Learn How To

- Discover geospatial resources that you can exploit for intelligence production.
- Create web maps and quickly configure them to meet your customers' needs.
- Disseminate intelligence through web map presentations, configured apps, story maps, and 3D web scenes.
- Efficiently share a collection of intelligence products to a single, group-accessible location.
- Consume your organization's portal content in ArcMap and share it in other formats.

Prerequisite: Geospatial Concepts for Intelligence Operations

### Using ArcGIS for Public Safety Workflows

Two days (16 hours)—\$1,130

#### Overview

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

#### 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

#### Learn How To

- Organize data and prepare it to be mapped.
- Accurately display data stored in tables and spreadsheets as features on a map.
- Create queries to quickly visualize trends and patterns that may be present in your data.
- Edit GIS data to ensure responders, decision makers, and stakeholders have access to up-to-date data.
- Apply spatial analysis techniques to derive new information from your data.
- Create a map to visualize and share public safety information.

Prerequisites: Experience with Windows-based software for basic file management and browsing is required. Familiarity with basic GIS concepts is recommended.

### Using ArcGIS for Mining Geoscience Workflows

Three days (24 hours)—\$1,695

#### Overview

This course introduces ArcGIS workflows that support efficient mining geoscience processes. In course exercises, you will work with realistic mining data to solve problems related to mineral exploration, land management, and mine operations. You will learn how to manage, analyze, and visualize mining data to create reliable information that supports decision making.

#### Who Should Attend

Geoscientists, GIS analysts, and other professionals in the mining industry

#### Learn How To

- Organize geologic data, sample data, and other mining-related datasets for efficient data management and mapping.
- Create and edit data to support accurate mapping and analysis.
- Apply a standard analysis workflow to produce reliable information for decision makers.
- Locate optimal areas for mineral exploration.
- Visualize data and share analysis results.

Prerequisite: ArcGIS 1: Introduction to GIS

### Market Analysis Using Esri Business Analyst

Two days (16 hours)—\$1,130

#### Overview

This course teaches how to use the Esri Business Analyst™ system and its extensive data package to increase understanding of your customers, competitors, and market opportunities. You will learn a process to visualize key demographic, consumer, and business data; perform analytics to uncover patterns and trends that impact your business; and create trade areas based on multiple criteria. You will also learn how to share your data-backed insight using custom reports and maps.

#### Who Should Attend

Market analysts and other business professionals with some GIS experience

#### Learn How To

- Visualize and explore market data to gain an in-depth understanding of a study area.
- Evaluate trade area potential based on existing customer and site locations.
- Perform different types of market analyses to find optimal locations for new sites.
- Target ideal customers based on the criteria that matter for your business.
- Optimize sales and service territories based on customer locations.

Prerequisite: ArcGIS 1: Introduction to GIS

## Industry-Focused Courses (continued)

### Using ArcGIS for Water Utility Workflows

Two days (16 hours)—\$1,130

#### Overview

This course teaches how to leverage the ArcGIS platform and focused solutions to efficiently manage water utility assets, analyze a network, streamline field data collection, monitor field operations, disseminate information across an organization, and share information with the public to deliver better customer service. Familiarity with water utilities terminology is assumed.

#### Who Should Attend

GIS analysts, specialists, technicians, and others who work for water, wastewater, or stormwater utilities

#### Learn How To

- Identify the ArcGIS water utility solutions that support common workflows.
- Add and edit features to maintain the accuracy of network data.
- Analyze network flow to identify valves, lines, and customers impacted by a break, leak, or other network disruption.
- Create and publish a web map to support hydrant inspection using a mobile device.
- Configure a dashboard view for field managers to monitor hydrant inspections in progress.
- Create and share web layers, web maps, and web apps to disseminate information within your organization and with the public.

Prerequisite: ArcGIS 2: Essential Workflows

### Hydrologic and Hydraulic Analyses Using ArcGIS

Two days (16 hours)—\$1,130

#### Overview

This course presents GIS techniques used for terrain analysis, hydrology and hydraulics (H&H) characteristics extraction, numerical model input/output, modeling process automation, and result mapping. The course focus is on the functionality that GIS provides to H&H modeling, not on performing H&H analyses.

#### Who Should Attend

H&H and GIS professionals who support H&H analyses

#### Learn How To

- Use triangulated irregular networks (TINs) and Esri Grid to represent terrain surfaces.
- Implement GIS as a spatial and temporal integrator.
- Use hydrologic statistical modeling—National Stream Statistics (NSS) and StreamStats.
- Develop hydrologic physical models—Hydrologic Modeling System (HMS) and Geospatial Hydrologic Modeling System (GeoHMS) extension.
- Develop hydraulic models—River Analysis System (RAS) and Geospatial River Analysis System (GeoRAS) extension.
- Perform floodplain mapping.
- Implement GIS process automation and integration.

Prerequisites: Yes, see website for details.

### Arc Hydro: GIS for Water Resources

Three days (24 hours)—\$1,695

#### Overview

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

GIS professionals and others interested in ArcGIS water resource applications who want to implement the Arc Hydro data model and tools

#### Learn How To

- Apply core and advanced Arc Hydro tool functionality.
- Combine Arc Hydro data structure and tools to solve realistic water resource problems.
- Extend Arc Hydro tools to create custom functionality.
- Integrate external models into Arc Hydro.

Prerequisites: Yes, see website for details.

### Working with Geometric Networks for Utilities

One day (8 hours)—\$565

#### Overview

This course teaches how to accurately model a utility network so that your organization can more efficiently manage network assets, quickly respond to network outages, and deliver better customer service. You will learn fundamental concepts of a geometric network and the workflow to create one. Working with realistic electric, gas, and water/wastewater data, you will create and edit geometric networks and perform common analysis tasks.

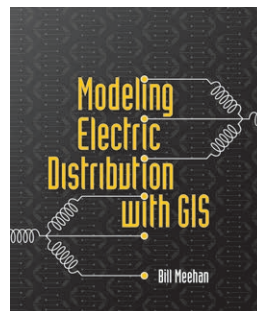
#### Who Should Attend

Spatial data managers and GIS technicians who work in the electric, gas, or water/wastewater industries

#### Learn How To

- Model utilities features using a geometric network stored in a geodatabase.
- Create network rules, assign network weights, and validate network connectivity.
- Analyze flow along a geometric network.
- Update network features and create new rules as needed.

Prerequisite: ArcGIS 2: Essential Workflows



All attendees receive a complimentary copy of the Esri Press book *Modeling Electric Distribution with GIS*.

## Instructor-Led Workshops

Instructor-led workshops present conceptual material, demonstrations, and best practices on a focused technology topic. Taught online in real time by an expert Esri instructor, a workshop is an ideal way to get up to speed quickly without leaving the office. Workshops include ample time for questions and answers, downloadable resource materials, and a certificate of completion.

### User Workflows for ArcGIS Online Organizations

Four hours—\$185

This workshop introduces you to web maps, apps, and other authoritative content that may be available through your ArcGIS Online organizational site. You will see how this content can help you infuse projects with geographic context, additional business intelligence, and visual impact. The instructor shows how to create and share web maps on an organizational site and from within Microsoft Excel and PowerPoint. Workshop concepts also apply to organizational sites created using Portal for ArcGIS.

#### Who Should Attend

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

### ArcGIS Online Subscriptions for Organizations: Publisher Workflows

Four hours—\$185

In this workshop for GIS analysts and others who will share content to an organization's ArcGIS Online site, you will learn about the types of content you can share and how to author GIS resources to support their planned use. You will also see how including GIS resources in web maps and web applications extends their value throughout the organization and even to the general public. Tips to help you plan your publishing strategy are given throughout.

#### Who Should Attend

Anyone who needs to publish GIS resources to an ArcGIS Online organizational site should attend. GIS analysts, specialists, data managers, and other knowledge workers will benefit.

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“With nothing ever scheduled for my traveling area, I finally opted to take the course online. It exceeded my expectations, and I will definitely consider taking an online course with Esri again in the future.”

Christine Narayana

Configuring and Managing the Multiuser Geodatabase

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“The course challenged me, and I learned a lot.”

Dave McMillan

Introduction to Geoprocessing Scripts Using Python

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### Exploring Enterprise GIS: A Workshop for Leaders

Four hours—\$185

Get the context needed to understand how enterprise GIS supports daily operations and spurs innovation. You will explore common business patterns that drive initial GIS adoption and the unique ArcGIS platform capabilities that yield strategic insight and better decision making. Examples of how organizations in a variety of industries achieve value through enterprise utilization of ArcGIS tools, content, and workflows are presented.

#### Who Should Attend

C-level executives, IT and GIS managers, system architects, and decision makers in business, government, education, and nonprofit organizations

# Notes

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## GIS Certification Institute

Esri instructor-led and self-study courses qualify for educational achievement points awarded by the GIS Certification Institute (GISCI). After completing an Esri training course, you may submit your course completion certificate to GISCI for verification. For more information about GISCI, visit [www.gisci.org](http://www.gisci.org).

# Esri Technical Certification



The Esri Technical Certification Program is designed to create a community of qualified individuals who are proficient in best practices using Esri software. Whether you're a GIS professional, an application developer, or an enterprise system administrator, an Esri technical certification validates your expertise and enhances your professional credibility.

For organizations, certification offers a competitive advantage, simplifies the hiring process by helping to quickly identify qualified candidates, and supports the professional development of key technical staff.

## Taking an Exam

Pearson VUE, Esri's global testing partner, offers exams at more than 5,000 locations around the world. Exams are computer based and take approximately two hours to complete. Exams are currently offered in English only.

To view detailed information for each exam, visit [esri.com/certification](http://esri.com/certification).

To register for an exam, visit [www.pearsonvue.com/esri](http://www.pearsonvue.com/esri).

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"As an engineering firm, we have to compete based on skills, and these certifications prove the skills."

Mark Valentino  
ArcGIS Desktop Professional and  
Enterprise Administration Associate

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## Preparing for an Exam

Skills and knowledge acquired on the job are the best preparation for a certification exam. Candidates should carefully review the detailed exam information on the Esri Technical Certification website to determine if their skills align with the skills measured by an exam.

Esri offers no-cost sample question e-learning courses and the *Esri ArcGIS Desktop Associate Certification Study Guide* published by Esri Press. To access sample question courses, visit [esri.com/skillsreview](http://esri.com/skillsreview).

The *Esri ArcGIS Desktop Associate Certification Study Guide* is a comprehensive review of the skills and knowledge measured in the ArcGIS Desktop Associate certification exam. For more information, visit [esri.com/esripress](http://esri.com/esripress).

<b>DESKTOP</b>	ArcGIS Desktop Entry   Associate   Professional
<b>DEVELOPER</b>	ArcGIS Desktop Developer Associate
	Web Application Developer Associate
<b>ENTERPRISE</b>	Enterprise Geodata Management Associate   Professional
	Enterprise System Design Associate
	Enterprise Administration Associate

Esri Technical Certification Program



# Registration Information

## Instructor-Led Training

### 1. Select Your Course

Go to [esri.com/coursecatalog](https://esri.com/coursecatalog) to view schedules for instructor-led courses taught in the traditional classroom and online. For more information on course availability or for advice, please contact an Esri training consultant at [GIStraining@esri.com](mailto:GIStraining@esri.com) or 1-800-447-9778, extension 1-5757.

### 2. Register

A registration application is required for each student. We recommend that you register at least one month prior to the class, since applications are processed on a first come, first served basis.

- **Esri Training Website**—Once you've selected your course, enter the number of seats you'll need, or students who will attend, and click Register. You will then be asked to complete an online registration form and submit payment information through our secure online system.
- **By Fax or Mail**—Download and complete a registration application, which you can fax or mail to Esri. Directions are on the form.

Online registrations will be acknowledged within 2 business days. Phone, mail, and fax registration applications will be acknowledged via e-mail. Registrations will not be confirmed until payment is received. Classes are confirmed a minimum of 10 business days prior to the scheduled start date. Please keep this in mind when purchasing nonrefundable airline tickets.

### 3. Payment

To complete your registration, proof of payment is required. Payment can be made by check (payable to Esri), credit card, preexisting contract, federal government training request, or purchase order. Cash is not accepted. Purchase orders for less than \$800 will be accepted only from United States federal, state, and local government agencies; United States educational institutions; and Fortune 500 companies. Mail payment and a copy of your registration form to Esri, File #54630, Los Angeles, CA 90074-4630.

### Transfers and Substitutions

A student may transfer to another class up to two times without charge, after which an administrative fee will be assessed for each transfer. Student substitutions (filling a student's place with another person from the same organization) are allowed under certain conditions. Please refer to Training Terms and Conditions found at [esri.com/legal](https://esri.com/legal).

### Schedule Changes and Cancellations

It is sometimes necessary to change the dates on which a class is offered or to cancel a class. In this case, students will be notified by phone and e-mail as soon as possible and not less than 10 days prior to the scheduled start of the class.

### Travel, Lodging, and Meals

Esri is not responsible for student travel arrangements and assumes no responsibility for losses from nonrefundable travel arrangements, including, but not limited to, airfare, lodging, or transportation to and from the training site, due to schedule changes. Training location maps, including local hotels and airports, are provided to registrants. Meals are not provided by Esri. Students can access a training location map with a list of area hotels at [esri.com/trainingmaps](https://esri.com/trainingmaps).

### Course Materials

All course materials are provided at the training site. For online courses, Esri hosts software that is used in the course, and course materials and data are downloaded as part of the class.

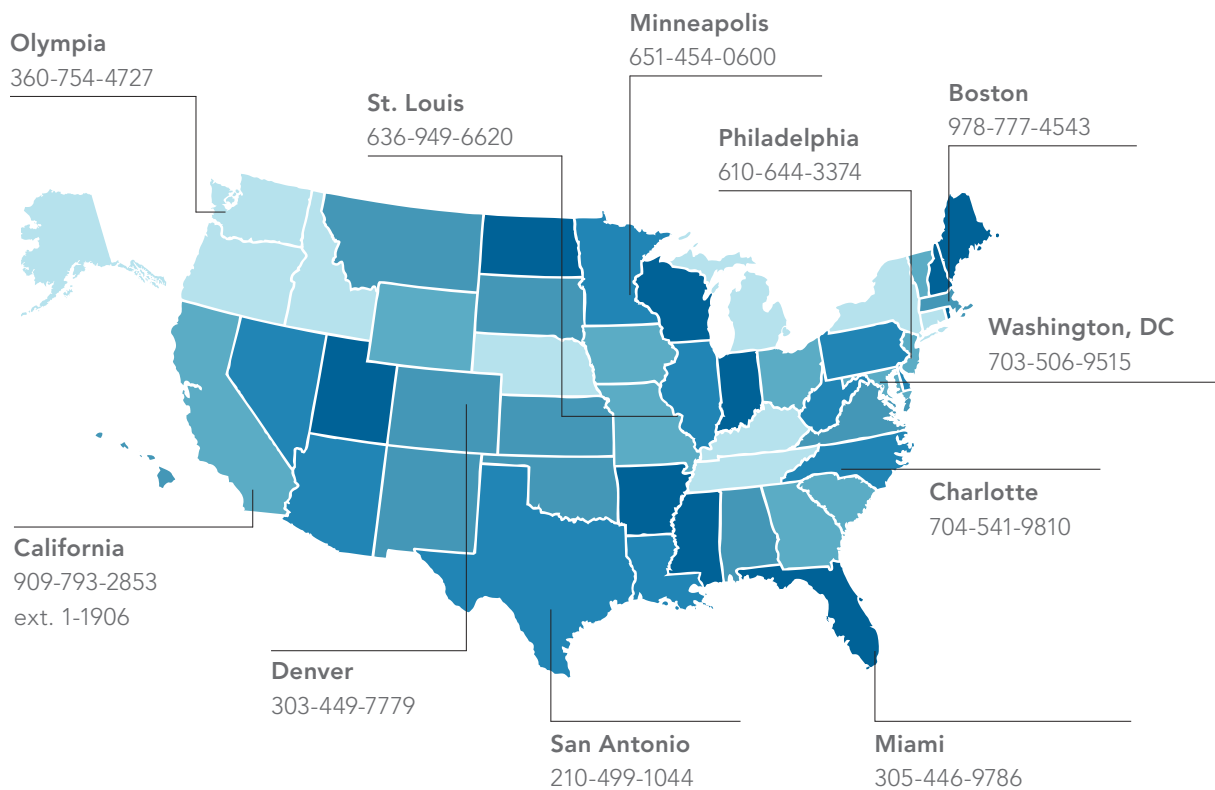
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# ESRI LEARNING CENTERS

Esri offers training at the following Esri regional offices. For more information, visit [esri.com/trainingmaps](http://esri.com/trainingmaps) or call 1-800-447-9778, extension 1-5757.

## ESRI REGIONAL OFFICES



## FIND OUT MORE ABOUT ESRI TRAINING

For the latest class schedules and detailed course descriptions and to register, visit [esri.com/coursecatalog](http://esri.com/coursecatalog).

My Esri News keeps you connected with GIS users and events in your area. Sign up today at [esri.com/myesrinews](http://esri.com/myesrinews).

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# Esri Training

Is your staff equipped to confidently use ArcGIS applications and content?

What knowledge and skills are needed to meet project goals?

Do you have a plan of action to achieve the full business benefits of GIS?

Helping your workforce develop the knowledge and skills they need to perform at a high level is a proven approach to achieving strategic business objectives.

Esri training consultants can partner with you to plan immediate, short-term, and long-term geospatial skills development. We specialize in providing targeted course recommendations to support individual learning needs, short-term training plans for teams and projects, and workforce development plans that support your strategic objectives.

To talk with an Esri training consultant, call 1-800-447-9778, ext. 1-5757, or email [GIStraining@esri.com](mailto:GIStraining@esri.com).

