

Esri® Hands-on Learning Lab for ArcGIS® 10.2

Lesson Summaries

Lesson 1: Introduction to ArcGIS for Desktop

Designed for the new ArcGIS® software user, this lesson will introduce you to the basic principles of GIS using ArcGIS for Desktop.

Lesson 2: Creating a map in ArcGIS for Desktop

In this lesson, you will use ArcGIS for Desktop to create a display-quality map in ArcMap™ software using layout view. You will first learn how to symbolize the map layers, then add a legend, north arrow, title, border, and background color to the map layout.

Lesson 3: Basics of the geodatabase model

This lesson will cover the key elements of the geodatabase model, including the geodatabase structure, feature classes, subtypes, relationship classes, topologies, and geometric networks.

Lesson 4: Editing with ArcGIS for Desktop

In this lesson, you will use the Editor toolbar commands in ArcMap to create and modify features stored in a geodatabase. You will be introduced to the snapping environment, feature templates, and construction methods.

Lesson 5: Introduction to versioned editing

Versioning allows multiple users to edit the same data without applying locks or duplicating data. In this lesson, you will learn to register data as versioned, create a new version, switch between versions, edit the versioned data, merge versions, and manage versioned data.

Lesson 6: Editing and maintaining parcel data in a parcel fabric

Parcel data is the foundation of a local government's land records database. In this lesson, you will learn about the parcel fabric data model, explore the parcel fabric editing environment, and learn to add a new parcel to the fabric.

Lesson 7: Geocoding with ArcGIS for Desktop

In this lesson, you will learn to create a point feature class from a list of addresses.

Lesson 8: Introduction to ArcGIS Network Analyst

ArcGIS Network Analyst helps you dynamically model network conditions and solve vehicle routing problems. In this lesson, you will explore a network dataset, then run a variety of route solver tools to address various scenarios.

Lesson 9: Introduction to linear referencing

GIS professionals in a variety of industries use the linear referencing functionality embedded in ArcGIS to maintain, analyze, and plan incidents, assets, and activities that occur along linear networks. In this lesson, you will use ArcMap to create, display, and modify routes and events.

Lesson 10: Using geometric networks for utilities applications

Water distribution, electrical lines, gas pipelines, telephone services, and water flow in a stream are all examples of resource flows that can be modeled and analyzed using



a geometric network. In this lesson, you will explore a geometric network, edit network features, use connectivity rules, and explore network trace operations.

Lesson 11: Introduction to ArcGIS Spatial Analyst

The ArcGIS Spatial Analyst extension provides a broad range of powerful spatial modeling and analysis capabilities. In this lesson, you will explore symbolizing points as vectors, and then you will create rasters using two interpolators found in the Spatial Analyst toolbox: the Spline tool and the IDW tool.

Lesson 12: Introduction to ArcGIS for Server

ArcGIS for Server software makes your geographic information available to others in your organization or, optionally, anyone with an Internet connection. In this lesson, you will author, publish, and share GIS resources using ArcGIS for Server.

Lesson 13: Designing web applications using ArcGIS for Server

Once you have created a web service using ArcGIS for Server (see lesson 12), you can use a web application to access the service. This lesson is designed to teach you how to create a web application using the ArcGIS Viewer for Flex application.

Lesson 14: Sharing maps and tools using ArcGIS Online

ArcGISsm Online is a place to web enable your maps and related geographic information and then share them with your users. In this lesson, you will use ArcGIS for Desktop and ArcGIS Online to explore different methods for sharing maps and data, including using map packages and geoprocessing packages.

Lesson 15: Sharing data with the Community Maps Program

Through the Esri Community Maps Program, your organization can contribute geographic data that Esri may include in one or more ArcGIS Online community maps. In this lesson, you will use ArcGIS Explorer to discover examples of the content

available on ArcGIS Online and explore techniques for determining whether you have basemap content that should be contributed to the Community Maps Program.

Lesson 16: Spatial statistics for public health

The exploratory Spatial Statistics Tools allow you to determine the distribution and patterns of various geographic phenomena and events. In this lesson, you will use several tools located in the Spatial Statistics Tools toolbox to examine the spatial pattern and distribution of a dengue fever outbreak.

Lesson 17: Working with CAD in ArcGIS for Desktop

GIS workflows often rely on CAD datasets generated by outside survey, engineering, and architectural sources. Integrating CAD data with your GIS can be a critical step in streamlining design processes and using your GIS as a central repository for spatial data. In this lesson, you will learn to convert an existing CAD data source into features in the geodatabase.

Lesson 18: Introduction to geoprocessing using Python

This lesson is an introduction to the Python scripting language and its usefulness for accessing the power of GIS.

Lesson 19: What's new in ArcGIS for Desktop 10 and 10.1

Both ArcGIS 10 and ArcGIS 10.1 include extensive additional and improved functionality throughout the ArcGIS product line. This lesson examines a variety of updates in ArcGIS for Desktop across both versions.



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