ArcGIS I: Introduction to GIS (2 days)

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.

Who Should Attend

Individuals who do not have any prior GIS education or workplace experience with GIS.

Prerequisite: basic computer skills with the Microsoft Windows operating system

Goals

After completing this course, you will be able to

- Quickly create and share a GIS map using ArcGIS web-based tools and content.
- Find and organize geographic data and other GIS resources for a mapping project.
- Accurately display features on a GIS map and efficiently access information about them.
- Analyze a GIS map to identify where features that meet specific criteria are located.
- Share GIS maps and analysis results so they can be viewed using desktop applications, websites, and mobile devices.

Course Outline

What is the ArcGIS system?

- Tools to easily find, create, share, and use GIS maps
- Multiplatform accessibility

GIS basics

- Components of a GIS
- Understanding the geographic approach
- What can you do with a GIS?
- Making and sharing a map using ArcGIS Online
What makes data geographic?

- Representing real-world features digitally
- Geographic data formats and non-geographic data formats
- Documenting important information about data with metadata

Mapping real-world feature locations using coordinate systems

- Geographic and projected coordinate systems
- Identifying a dataset's coordinate system
- Changing a dataset's coordinate system
- Changing the coordinate system for a map

Finding GIS maps and data

- Considerations when selecting data
- Sources of GIS data

Working with ArcGIS Online content

- Accessing ArcGIS Online content
- Types of content available
- Comparing data in a web map
- Working with a web application

Exploring a GIS map

- Navigating around places of interest
- Finding features and accessing feature information
- Changing feature symbology
- Visualizing change over time

GIS analysis

- Solving spatial problems
- Five-step process
- Determining where and when things occurred
- Sharing analysis results as graphs and layers

Sharing GIS maps

- Exporting a map
- Creating a map package
- Preparing a GIS map for web and mobile access
- Publishing maps to ArcGIS Online
- Creating a map presentation using ArcGIS Explorer Online