TEACHMEGIS.COM
GIS TRAINING CENTER

Fundamentals of ArcGIS for Public Health

Course Length: 2 Days
ArcGIS Version: 10.x

Overview

Professionals from environmental health, epidemiology, community health, and almost every other sector of public health can use maps to understand the spatial distribution of health determinants. Mapping social and economic patterns, the location of hazardous materials handlers, and sensitive populations assists in preventing and mediating events that could affect public health. GIS software allows you to map your data. It also has powerful tools for analyzing your data by looking at spatial distribution and spatial relationships. For example, are there any elder care facilities within 1000 ft of this retention pond? If this chemical tank leaks, what aquifers would this chemical likely seep in to? Where are the hotspots for this disease and are there any schools nearby? This class teaches participants how to map their data and, at the same time, begin to analyze it.

Audience

This course is for public health professionals who want to create maps and analyze and explore data in ArcGIS.

Topics Covered

Day 1

- Introduction to GIS – Understand the basic concepts of GIS, ArcMap, and the different types of GIS data. (What is GIS?; Working in ArcMap; GIS Data)
- ArcMap Basics – Become familiar with common tools and the ArcMap interface. (Essential Tools)
- Use Symbology to Analyze the Data – Learn how to use various symbology methods with different types of GIS data. (Symbolize Vector Data; Symbolize Raster Data; Image Analysis Window)
- Designing Your Map for Presentation – An introduction to map layouts. Learn how to design your map using templates and various elements and objects that make your map ready to be shared. (Data View and Layout View; Designing the Page; Adding Elements to Explain the Data; Printing and Exporting)

Day 2

- Understanding GIS Data Types – Become familiar with the different GIS data formats (geodatabases, shapefiles, tables, text files, and raster files), where to find them, how to access them, and document them. (Finding Data; Accessing and Managing Data; GIS Data; Documenting Your Data)
- Asking Questions of Your Data – An introduction to the concept of selections and queries. (Selecting Features; Interactive Selection; Select By Attributes; Select By Location; Using the Selection)
- Optimizing the Display of Your Data – Learn about layers, the Table Of Contents, and the different display properties. (Layer Organization; Layer Properties; Layer Files)
- Tables and Analysis – Gain an introductory understanding of GIS analysis. Learn about the different types of tables and the ways tabular data can be displayed on a map. (Working with Tables; Plotting Coordinates; Address Geocoding; Basic Geoprocessing)

Format

In-person instruction with hands-on practice, and course materials you can keep.

Prerequisites and Recommendations

Attendees should have knowledge of Microsoft Windows® and Microsoft Office®.