



# Working with Geodatabases & Linear Referencing

*Self Paced Course*  
Created by **Juniper GIS**

## Course Overview

Geodatabase Fundamentals teaches the fundamental concepts that you need to know to use ESRI's geodatabase for managing your geographic and tabular data. Course participants are led through a series of modules covering topics such as Geodatabase Basics, Understanding Geodatabase Data Model Diagrams, Building Geodatabase Schemas, Migrating Data to the Geodatabase, Attributes and Tables, Relationship Classes and much more.

## Target Audience

This course is designed for those with no or limited experience with ESRI's Geodatabase format that wish to learn more about how they work and how to use them.

## Prerequisites and recommendations

Students taking this course should have taken ArcGIS Desktop II or have similar real world experience.

## What You Get!

- Audio and Visual Lectures
- Software Demonstrations
- Exercises and Data
- Bound, Hard-Copy Lecture Materials

## Course Outline

The course is divided into three sections, Geodatabase Basics, Validating Data, and Linear Referencing. In the first section we will look at the basics of creating and managing a Geodatabase, and then converting data to the Geodatabase format. Students will create feature classes and feature datasets, added attribute fields, and use tools such as the simple data loader to import data. Students will also learn methods for managing raster data in a Geodatabase.

In the second section, students learn how to use the Geodatabase to validation tools to check data for attribute and spatial errors. Students will create topologies, subtypes and domains and see how these are used to ensure data quality and make data editing easier.

In the third section, students work with Routes and Linear Referencing. Routes let you attach multiple data tables to linear features for analysis and mapping. The easiest way to think about routes is the milepost numbers you see as you drive down roads. Once you have established a route with "mileposts" you can then link this to multiple data sources. In the last module, we'll show you a sample extension that will make it easier to manage and create reports on your Geodatabase.



## Modules

### Section 1: Geodatabase Basics

- Module 1: Geodatabase Concepts and Basics
- Module 2: Converting Data to the Geodatabase Format
- Module 3: Working with Rasters in the Personal Geodatabase

### Section 2: Validating Data

- Module 4: Validating Attributes - Subtypes, Domains, Relationship Classes
- Module 5: Validating Features - Topology in the Geodatabase
- Module 6: Editing Topology

### Section 3: Linear Referencing

- Module 7: Understanding Linear Referencing
- Module 8: Editing and Using Routes for Analysis
- Module 9: The Geodatabase Designer

## Cost

The fee for this course is \$150.00 per student plus shipping for mail delivery\* or \$130.00 for digital download.

\* Mail delivery includes delivery of printed materials only. All electronic data and record lectures must still be downloaded from the internet. Only available in the US and Canada.

## Required Hardware & Software

The following is required to take this course:

- ArcGIS Desktop 10 (ArcView, ArcEditor, or ArcInfo)
- Internet Browser (Internet Explorer 7 or higher recommended)
- Windows XP, Vista or 7
- CD-ROM or DVD-ROM

If you do not have a copy of ESRI's ArcGIS Desktop software you can request a 60 day evaluation version by going to

<http://www.esri.com/software/arcgis/arcview/eval/evaluate.html>

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