Managing Geospatial Data in ArcGIS®
1 Why use a geodatabase?

Lesson introduction
Types of data
Data within your organization
Organizational goals
Advantages of using a geodatabase
Organizing your data for a feature dataset
Life cycle of a geodatabase
Exploring a geodatabase
Exercise 1: Get started with a geodatabase
   Sign in to ArcGIS Pro
   Create a new ArcGIS Pro project
   Inventory the data
   Create a file geodatabase
   Import a feature class into the geodatabase
   Create a feature dataset
   Import feature classes to the feature dataset
   Add metadata to the imported layers
Lesson review

2 Improving data integrity with geodatabase structure

Lesson introduction
What is a schema?
Using a geodatabase to improve data integrity
Subtypes and domains in your organization
Exercise 2: Work with subtypes and domains
   Create a project
   Examine the domains
   Apply domains to the fields
   Create a domain
3  Associate nongeographic data with geographic data

Lesson introduction
Why associate nongeographic data with geographic data?
Types of nonspatial data
Considerations with incorporating nonspatial data
Basics of cardinality
Spatial and nongeographic data connections
Checkpoint
Relationship classes and tabular data
Methods to define associations
Relationship class workflow
Exercise 3: Use relationship classes
  Create a project
  Examine the Parcels feature class
  Examine the ParcelOwners table
  Create a relationship class
  Configure pop-ups
Adding media files with attachments
Using the Collector app with your geodatabase
Lesson review
Answers to Lesson 3 questions

4  Managing raster data

Lesson introduction
What is raster data?
Raster data in your organization
5 Designing geodatabase topologies

Lesson introduction
What is geodatabase topology?
Why use a topology?
Using topology in your organization
How topology works
Types of rules
Topology rules for each workflow
Using topology to correct geometry
Topology design workflow
Exercise 5A: Build a topology
  Create a project
  Evaluate spatial relationships
  Create a topology
  Configure the topology
  Validate the topology
Topology edit workflow
Exercise 5B: Apply a topology
  Assess topology errors
  Add study area
  Prepare to fix errors
  Fix errors
Lesson review
6 Migrating to an enterprise geodatabase

Lesson introduction
What is an enterprise geodatabase?
Comparison of types
Compare different geodatabase types
Benefits of an enterprise geodatabase
Checkpoint
Creating an enterprise geodatabase
Enterprise geodatabase connections
Building a connection
Accessing an enterprise geodatabase
Methods to add data to an enterprise geodatabase
Which method is more appropriate?
Exercise 6: Connect to an enterprise geodatabase
  Create a project
  Evaluate database connections
  Load data into an enterprise geodatabase
Lesson review
Answers to Lesson 6 questions

7 Working with enterprise geodatabases

Lesson introduction
Types of users within an enterprise geodatabase
Match the type of user
Controlling user capabilities
Role management
Checkpoint
Controlling user roles
Exercise 7A: Manage privileges in an enterprise geodatabase
  Create a project and make connections
  Grant privileges to the storm_water role
  Grant privileges to the waste_water role
Workflows for updating an enterprise geodatabase
Updating through automation
Exercise 7B: Update an enterprise geodatabase
  Add wastewater data to the map
  Evaluate data schemas
  Prepare the existing data
  Update the feature with new data
Lesson review
8 Editing workflows in a geodatabase

Lesson introduction
Types of editing workflows
Considerations about choosing an editing workflow
When should you version your feature class?
Checkpoint
Versioned editing
Learning the basics of versioned editing
Exercise 8: Edit versioned data
  Create a project
  Add a streets layer to the map
  Version the streets layer
  Edit the streets layer
  Compare versions
  Reconcile and post edits
  Confirm the changes
Connecting to ArcGIS Enterprise
Benefits of sharing with ArcGIS Enterprise
Workflow for using a feature service for editing
Appropriate workflows for each connection
Editing a shared feature service
Lesson review
Answers to Lesson 8 questions

Appendices

Appendix A: Esri data license agreement
Appendix B: Answers to lesson review questions
Appendix C: Additional resources