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
Apply the new domain
Add a study area layer
Edit with domains
Create subtypes
Use subtypes with domains
Symbolize with subtypes
Edit with subtypes
Challenge: Controlling input with range domains
Using a data model to improve workflows
Refining a data model
Selecting a data model
Working with data models
Lesson review
Answers to Lesson 2 questions
Exercise 2 challenge solution

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
  Reload the map
  Configure pop-ups
Adding media files with attachments
Using ArcGIS Collector with your geodatabase
Lesson review
Answers to Lesson 3 questions

4 Managing raster data

Lesson introduction
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
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
Matching 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
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