

Introduction to GIS – Workshop Overview

The workshop is broken up into five modules. Each module covers a specific topic and may have one or more detailed presentations, short “lightning talk” presentations, demos and hands-on independent exercises. The table below references each module, presentation and exercise covered in this three-day workshop.

Module	Presentation Topic	Exercise Type
Module 1: Introduction to GIS	1-1 - Introduction to GIS Introduction to ArcGIS	Follow the Instructor Exercise 1a - Hands on
Module 2: All about Data	2-1 - Where to Find Data (Lightning Talk) 2-2 - Data Types 2-3 - Understanding Spatial Reference	Exercise 2a – Hands on Exercise 2b – Hands on
Module 3: Working with Tables	3-1 - Introduction to Tables 3-2 – Working with Tables 3-3 – Selections & Queries	Ex 3a - Hands on Ex 3b - Hands on Ex 3c - Hands on
Module 4: Map Production	4-1 – Layer Symbology 4-2 - Adding Text & Graphics 4-3 - Creating a Cartographic Output 4-4 - Data Driven Pages (Lightning Talk)	Ex 4a - Hands On Ex 4b - Hands on Ex 4c - Hands on Reference Exercise 6c
Module 5: Data Manipulation	5-1 - Georeferencing (Lightning Talk) 5-2 – Digitizing & Editing 5-3 - Working with ArcToolbox	Reference Exercise 6f Ex 5a - Hands on Ex 5b - Hands on
Module 6: GIS Hodgepodge	6-1 - Adding XY Coordinates to ArcMap 6-2 - Mind Over Metadata 6-3 - Google Earth (KML) 6-4 - ArcGIS Online	Reference Exercise 6a Reference Exercise 6b Reference Exercise 6e Reference Exercise 6d

Hands-on Exercises

Exercise 1a: ArcMap Basics.....	Error! Bookmark not defined.
Getting Started: Opening ArcMap	Error! Bookmark not defined.
⊗ Open a New Map	Error! Bookmark not defined.
The ArcMap Interface.....	Error! Bookmark not defined.
⊗ Exploring the GUI	Error! Bookmark not defined.
⊗ Working with Toolbars	Error! Bookmark not defined.
Opening a Previously Created Map Document	Error! Bookmark not defined.
⊗ Open a Project File (.mxd) within ArcMap	Error! Bookmark not defined.
Using the Tools Toolbar to Navigate Within Data View	Error! Bookmark not defined.
⊗ The Tools Toolbar in Detail.....	Error! Bookmark not defined.
⊗ Using the Mouse to Pan and Zoom	Error! Bookmark not defined.
Adding Data to ArcMap	Error! Bookmark not defined.
⊗ Adding a Shapefile to ArcMap	Error! Bookmark not defined.
⊗ Opening a Feature Attribute Table.....	Error! Bookmark not defined.
Using Basic Tools in ArcMap	Error! Bookmark not defined.
⊗ Using the Identify Tool	Error! Bookmark not defined.
⊗ Measure Features.....	Error! Bookmark not defined.
⊗ Spatial Bookmarks.....	Error! Bookmark not defined.
Layer Properties and Data Frame Properties.....	Error! Bookmark not defined.
⊗ Layer Properties	Error! Bookmark not defined.
⊗ Data Frames and Data Frame Properties	Error! Bookmark not defined.
⊗ Insert a New Data Frame.....	Error! Bookmark not defined.
Save Your Work!	Error! Bookmark not defined.
⊗ Save Your Map Project (.mxd).....	Error! Bookmark not defined.
Finding Help	Error! Bookmark not defined.
⊗ ArcGIS Desktop Help	Error! Bookmark not defined.
⊗ ArcGIS Desktop Web Help	Error! Bookmark not defined.
Let's Review!	Error! Bookmark not defined.
Exercise 2a: Working with Data	Error! Bookmark not defined.
Getting Started: Opening ArcCatalog	Error! Bookmark not defined.
⊗ Exploring the ArcCatalog Interface	Error! Bookmark not defined.
Navigating the Catalog Tree.....	Error! Bookmark not defined.
⊗ Locate the ArcGIS10 Folder	Error! Bookmark not defined.
Modifying the Catalog Tree	Error! Bookmark not defined.
⊗ Connecting to a Folder	Error! Bookmark not defined.
⊗ Launch ArcMap.....	Error! Bookmark not defined.
⊗ Folder Connections in ArcMap.....	Error! Bookmark not defined.
Exploring Data Types	Error! Bookmark not defined.

❖ The File Geodatabase	Error! Bookmark not defined.
❖ Working with Shapefiles	Error! Bookmark not defined.
❖ Layer Files	Error! Bookmark not defined.
❖ Tabular Data	Error! Bookmark not defined.
❖ Raster Data.....	Error! Bookmark not defined.
❖ CAD Data.....	Error! Bookmark not defined.
Working with File Geodatabases.....	Error! Bookmark not defined.
❖ Creating a File Geodatabase	Error! Bookmark not defined.
❖ Importing Data into a Geodatabase	Error! Bookmark not defined.
Connecting to Web Enabled Data	Error! Bookmark not defined.
❖ Adding a Map Service to ArcMap	Error! Bookmark not defined.
Adding Content from ArcGIS Online.....	Error! Bookmark not defined.
❖ What is ArcGIS Online?	Error! Bookmark not defined.
❖ Adding a Base Map from ArcGIS Online	Error! Bookmark not defined.
❖ Adding Data from ArGIS Online.....	Error! Bookmark not defined.
Add Data from a REST Endpoint	Error! Bookmark not defined.
❖ Explore a REST URL.....	Error! Bookmark not defined.
❖ Add a Server URL to ArcMap	Error! Bookmark not defined.
Save Your Work!	Error! Bookmark not defined.
❖ Save Your Map Project (.mxd).....	Error! Bookmark not defined.
Let's Review!	Error! Bookmark not defined.
Exercise 2b: Understanding Spatial Reference	Error! Bookmark not defined.
Changing the Spatial Reference of the Data Frame	Error! Bookmark not defined.
Define a Features Spatial Reference (Define Projection).....	Error! Bookmark not defined.
Optional: Change a Features Spatial Reference (Project).....	Error! Bookmark not defined.
Bonus: Change the Spatial Reference of the Data Frame	Error! Bookmark not defined.
Exercise 3a: Introduction to Tables	Error! Bookmark not defined.
Field Properties	Error! Bookmark not defined.
❖ Field Properties via Layer Properties.....	Error! Bookmark not defined.
❖ Field Properties via Table Properties.....	Error! Bookmark not defined.
Explore the Attribute Table	Error! Bookmark not defined.
❖ Row Box Menu	Error! Bookmark not defined.
❖ Field Menu.....	Error! Bookmark not defined.
Selections	Error! Bookmark not defined.
❖ Select Records in a Table.....	Error! Bookmark not defined.
Exercise 3b: Working with Tables	Error! Bookmark not defined.
Getting Started	Error! Bookmark not defined.
❖ Open an Existing Map (.mxd)	Error! Bookmark not defined.
❖ Table Options	Error! Bookmark not defined.
❖ Add a Table to ArcMap and Open the Table	Error! Bookmark not defined.

✦ Arranging the Table Window.....	Error! Bookmark not defined.
Table Joins.....	Error! Bookmark not defined.
✦ Join Two Tables.....	Error! Bookmark not defined.
✦ Examine Joined Tables	Error! Bookmark not defined.
✦ Field Calculator.....	Error! Bookmark not defined.
Add an Excel File of Election Results	Error! Bookmark not defined.
✦ Join Excel File to a Feature Class	Error! Bookmark not defined.
✦ Export as Feature Class	Error! Bookmark not defined.
Extra Credit	Error! Bookmark not defined.
✦ Advanced Calculations	Error! Bookmark not defined.
Exercise 3c: Selections and Queries	Error! Bookmark not defined.
✦ Selectable Layers	Error! Bookmark not defined.
✦ Selection Options.....	Error! Bookmark not defined.
✦ Interactive Features Selection	Error! Bookmark not defined.
✦ Clear Selected Features	Error! Bookmark not defined.
✦ Select by Attributes Query Builder	Error! Bookmark not defined.
✦ Creating a Definition Query.....	Error! Bookmark not defined.
✦ Select by Location	Error! Bookmark not defined.
✦ Export Selected Features	Error! Bookmark not defined.
Extra Credit	Error! Bookmark not defined.
✦ Select By Location Using Selected Features	Error! Bookmark not defined.
✦ Select By Graphics	Error! Bookmark not defined.
Exercise 4a: Symbology	Error! Bookmark not defined.
Changing a Layer's Symbol	Error! Bookmark not defined.
✦ Line Symbol Selector	Error! Bookmark not defined.
✦ Polygon Symbol Selector.....	Error! Bookmark not defined.
✦ Point Symbol Selector	Error! Bookmark not defined.
Making Thematic Maps.....	Error! Bookmark not defined.
✦ Symbolizing Point Categories	Error! Bookmark not defined.
✦ Symbolizing Line Categories	Error! Bookmark not defined.
✦ Symbolizing Polygon Categories	Error! Bookmark not defined.
Classifying Numeric Data.....	Error! Bookmark not defined.
Save Symbology in a Layer (.lyr) File	Error! Bookmark not defined.
Exercise 4b: Labels, Graphics and Annotation	Error! Bookmark not defined.
Getting Started: Label Basics	Error! Bookmark not defined.
✦ Set Up Your Map	Error! Bookmark not defined.
✦ The Labels Tab.....	Error! Bookmark not defined.
✦ Setting a Scale Range	Error! Bookmark not defined.
✦ Using a Label Expression	Error! Bookmark not defined.
✦ Formatting a Label Expression	Error! Bookmark not defined.

✦ Applying a Reference Scale.....	Error! Bookmark not defined.
Advanced Labels: Label Classes	Error! Bookmark not defined.
✦ Create a Label Class	Error! Bookmark not defined.
✦ Specify a Label Scale Range.....	Error! Bookmark not defined.
Geodatabase Annotation.....	Error! Bookmark not defined.
✦ Adding Additional Data Frames	Error! Bookmark not defined.
✦ Create a Geodatabase Annotation Class	Error! Bookmark not defined.
✦ Exploring Annotation.....	Error! Bookmark not defined.
Adding Graphics to a Map.....	Error! Bookmark not defined.
✦ The Draw Toolbar	Error! Bookmark not defined.
✦ Add a Graphic Shape to Your Map	Error! Bookmark not defined.
✦ Add a Text Element to Your Map.....	Error! Bookmark not defined.
✦ Deleting a Graphic or Text Element.....	Error! Bookmark not defined.
Exercise 4c: Map Layouts	Error! Bookmark not defined.
Getting Started: Layout Basics	Error! Bookmark not defined.
✦ Set up Your Map.....	Error! Bookmark not defined.
✦ Working in Layout View	Error! Bookmark not defined.
✦ The Layout Toolbar.....	Error! Bookmark not defined.
✦ Data Frames in Layout View.....	Error! Bookmark not defined.
Adding Cartographic Elements	Error! Bookmark not defined.
✦ Add a Title.....	Error! Bookmark not defined.
✦ Add a Legend	Error! Bookmark not defined.
✦ Add a Scale Bar.....	Error! Bookmark not defined.
✦ Add a North Arrow	Error! Bookmark not defined.
✦ Add a Text Element	Error! Bookmark not defined.
✦ Add an Image	Error! Bookmark not defined.
✦ Customize the Overview Map.....	Error! Bookmark not defined.
Creating a PDF Map	Error! Bookmark not defined.
✦ Preparing Your Layout for Export	Error! Bookmark not defined.
✦ Export to PDF	Error! Bookmark not defined.
✦ Explore Your PDF.....	Error! Bookmark not defined.
✦ Advanced PDF Functions	Error! Bookmark not defined.
Printing & Sharing a Map	Error! Bookmark not defined.
✦ Print Your Map.....	Error! Bookmark not defined.
✦ Creating a Map Package	Error! Bookmark not defined.
Exercise 5a: Digitizing Basics.....	Error! Bookmark not defined.
Editing Tools	Error! Bookmark not defined.
✦ Preparing the View for Editing	Error! Bookmark not defined.
✦ Starting an Edit Session	Error! Bookmark not defined.
✦ The Editing Environment	Error! Bookmark not defined.

- ⊗ Digitizing Points **Error! Bookmark not defined.**
- ⊗ Adding Attributes **Error! Bookmark not defined.**
- ⊗ Digitizing Lines..... **Error! Bookmark not defined.**
- ⊗ Digitizing Polygons **Error! Bookmark not defined.**
- ⊗ Edit a Vertex **Error! Bookmark not defined.**
- Advanced Editing** **Error! Bookmark not defined.**
- ⊗ Prepare Your Map **Error! Bookmark not defined.**
- ⊗ The Cut Polygons Tool **Error! Bookmark not defined.**
- Extra Credit **Error! Bookmark not defined.**
- Exercise 5b: ArcToolbox** **Error! Bookmark not defined.**
- Basic Geoprocessing Tools** **Error! Bookmark not defined.**
- ⊗ Using the Clip Tool **Error! Bookmark not defined.**
- ⊗ Using the Dissolve Tool **Error! Bookmark not defined.**
- ⊗ Search for ArcToolbox Tools **Error! Bookmark not defined.**
- ⊗ The Dissolve Tool Interface **Error! Bookmark not defined.**
- ⊗ Export a Subset of a Data Layer **Error! Bookmark not defined.**
- More Advanced Geoprocessing Tools** **Error! Bookmark not defined.**
- ⊗ The Buffer Tool **Error! Bookmark not defined.**
- ⊗ The Union Tool **Error! Bookmark not defined.**
- ⊗ Analyzing the Results **Error! Bookmark not defined.**
- ⊗ The Intersect Tool **Error! Bookmark not defined.**
- Reference Exercise 6a: Mad About Metadata** **Error! Bookmark not defined.**
- Getting Started: Metadata in ArcCatalog** **Error! Bookmark not defined.**
- ⊗ Explore Existing Metadata **Error! Bookmark not defined.**
- ⊗ No Metadata? **Error! Bookmark not defined.**
- Editing Metadata** **Error! Bookmark not defined.**
- ⊗ Metadata Style Options **Error! Bookmark not defined.**
- ⊗ Editing Metadata **Error! Bookmark not defined.**
- Lightning Round: Getting Coordinate Data into ArcMap** **Error! Bookmark not defined.**
- Lightning Round: Data Driven Pages** **Error! Bookmark not defined.**
- Lightning Round: ArcGIS Online** **Error! Bookmark not defined.**
- Lightning Round: Converting to Google KML** **Error! Bookmark not defined.**
- Lightning Round: Georeferencing** **Error! Bookmark not defined.**