MCS GEOTECH (P) LTD

Certified G.I.S Professional

MODULE-2 – Course Elaboration

Discover, use, make, and share maps
- **Lesson introduction**
- **GIS in your organization**
- **Discover > use > make > share workflow**
- **Publishing a web map**
- **Open a map document**
- **Select features based on spatial location**
- **Export selected points**
- **Prepare data for publishing**
- **Publish the map as a service**
- **Create a web map**
- **Save and share the web map**
- **Test**

Integrating data
- **Lesson introduction**
- **Where does data come from?**
- **Layers and data**
- **Commonly used data**
- **Getting data into the geodatabase**
- **Integrate and organize GIS data**
- **Create a folder connection**
- **Add a basemap layer**
- **Add CAD data to the map**
- **Add a shapefile to the map**
- **Search for Online data and add it to the map**
- **Identify location of downloaded data**
- **Export a layer's data to a geodatabase**
- **Export data using the Catalog window**
- **Locate features based on a spatial location**
- **Update the item description**
- **Test**

Managing map layers
- **Lesson introduction**
- **Map scale**
- **Displaying map scale**
- **Specifying scales**
- **Controlling the visibility of features**
- **Displaying layers at different scales**

- **Creating predefined display areas**
- **Organizing layers**
- **Use layers to create optimal map displays**
- **Use map scales to explore level of detail**
- **Build an attribute query**
- **Create a layer from selected features**
- **Set layer scale ranges**
- **Use your map scale ranges**
- **Display data using a definition query**
- **Set layer scale ranges for lakes**
- **Create group layers**
- **Test**

Displaying data

- **Lesson introduction**
- **Why symbolize your data?**
- **Displaying data categories**
- **Displaying data quantities**
- **Types of attributes**
- **Differentiate between categories and quantities**
- **Surface temperature in degrees Fahrenheit**
- **Crater Lake area slope**
- **Road atlas**
- **Classifying data**
- **Normalizing data**
- **Symbolize GIS Data**
- **Evaluate attributes for symbology**
- **Compare quantitative maps**
- **Test**

Working with tabular data

- **Lesson introduction**
- **Working with tables**
- **Explore tables and attributes**
- **Explore tabular data**
- **Display points based on geographic coordinates**
- **Export point locations to create a new feature class**
- **Symbolize point locations**
- **Import symbology to match corresponding features**
- **Change the appearance of the attribute table**
- **Summarize a table**
- **Format a field**
- **Table relationships**
- **Types of table relationships**
- **Working with table relationships**
- **Join and relate tables**
- **Determine cardinality between tables**
- **Join two tables**
- **Calculate values from the joined table**
- **Relate tables**
- **Explore the relate**
- **Change the display expression**
- **Test**

Creating and editing data

- **Lesson introduction**
- **Editing GIS data**
- **What types of data can you edit?**
- **The editing workflow**
- **Applying the editing workflow**
- **Create and update features**
- **Open an editing map to visualize edits**
- **Add a new point feature**
- **Add a new line feature**
- **Delete a feature**
- **Create a new polygon feature**
- **Copy and paste features**
- **Merge features in the same layer**
- **Review the editing workflow**
- **Test**

Labeling features

- **Lesson introduction**
- **What is missing from this map?**
- **What is labeling?**
- **The labeling workflow**
- **Labeling options**
- **Introducing Maplex**
- **Workflow: Creating map labels with Maplex**
- **Label features using the Standard Label Engine**
- **Prepare your map for labeling**
- **Set the label symbol**
- **Label polygons**
- **Label line features**
- **Create label classes**
- **Label features using Python**
- **Apply a label scale range**
- **Label another polygon layer**
- **Assign feature weights**
- **Apply a reference scale**
- **Test**

Designing map layouts

- **Lesson introduction**
- **What is a map layout?**
- **Workflow: Creating a map layout**
- **Working with map elements**
- **Create a map layout**
- **Begin the map layout**
- **Size and position your map**
- **Add the map title**
- **Add a subtitle**
- **Group elements**
- **Create a map legend**
- **Adjust the legend properties**
- **Add an overview map**
- **Add a scale bar**
- **Add a north arrow**
- **Add dynamic text**
- **Add a map border**

- **Export your map**
- **Workflow: Creating a map book**
- **Test**

Evaluating data for analysis

- **Lesson introduction**
- **Evaluating data quality**
- **Errors in GIS data**
- **Currency and credibility**
- **Completeness**
- **Consistency**
- **Accuracy**
- **Aligning geographic data**
- **Discovering error**
- **Evaluate data quality**
- **Evaluate data currency and credibility**
- **View the list of geographic transformations**
- **Transform the geographic coordinate system**
- **Create a selection and export transformed data**
- **Evaluate data completeness**
- **Evaluate data consistency**
- **Evaluate data accuracy**
- **Test**

Solving spatial problems

- **Lesson introduction**
- **What are spatial problems?**
- **Using geoprocessing tools for analysis**
- **Analysis through geoprocessing**
- **Buffer**
- **Clip**
- **Intersect**
- **Union**
- **Merge**
- **Spatial join**
- **Using geoprocessing tools for analysis**
- **The spatial analysis workflow**
- **Apply the analysis process**
- **Frame the question**
- **Test**

Sharing geographic information

- **Lesson introduction**
- **Creating models**
- **Sharing geographic information**
- **Choose a sharing method**
- **Build and run a model**
- **Create a new toolbox**
- **Create a new model and add the Buffer tool**
- **Select by location**
- **Select by attributes**
- **Save the selected features as a new feature class**
- **Run the model**
- **Run the model as a tool**
- **Sharing a geoprocessing package**

- **Share geographic information**
- **Author the geoprocessing package**
- **Share the geoprocessing package**
- **Use the geoprocessing package**
- **Test**