

# **MCS GEOTECH (P) LTD**

## **Certified G.I.S Professional**

### **MODULE-1 – Course Elaboration**

#### **Fundamentals of GIS**

- Introduction to concepts of GIS
- Understanding a geographic approach
- Understanding the benefits of GIS
- Understanding the sectorial applicability of GIS
- Execute GIS Maps Production
- Evaluate Product Selection as a GIS Tools
- Learn selection of Map and link data to the map
- Sharing the map
- Review Test

#### **Understanding GIS data**

- Introduction
- Turning geographic information into GIS data
- GIS data models in GIS software
- Learn various data models
- Working with tables
- Learn Data Documentation
- Explore GIS data, folder connections , file types
- View an item description, Metadata Correction
- Preview dataset's geography and table
- Add data to the map and study Online content
- Understand web maps & Web mapping applications
- Explore GIS content, web content, desktop content
- Review Test

#### **Evaluate coordinate systems**

- Lesson introduction
- Learn location, How spatial data stores location
- Learn Geographic coordinate systems and Working with data in different geographic coordinate systems
- Learn Projected coordinate systems
- Spatial properties and distortion
- Understanding distortion
- Exercise 4: Work with coordinate systems
- Identify the coordinate system for a dataset
- Identify the coordinate system for another dataset

- Identify a dataset with a different coordinate system
- Identify a dataset with an unknown coordinate system
- Assign a coordinate system to a dataset without a spatial reference
- Change the coordinate system for a dataset
- Review Test

### **Acquiring and selecting GIS data**

- Lesson introduction
- Methods for obtaining GIS data
- Accessing GIS data
- Considerations for creating GIS data
- Creating data
- Considerations for choosing GIS data
- Evaluating GIS data
- Gather and evaluate GIS data
- Consider the data you need
- Examine the data you have
- Add data from another organization
- Transfer files from one geodatabase to another
- Import shapefiles into the geodatabase
- Lesson review

### **Interacting with a map**

- Lesson introduction
- Symbology and visualization
- Finding, identifying, and selecting features
- Asking questions and getting answers
- Getting information from a GIS map
- Explore a map
- Navigate the map
- Modify symbology
- Identify features
- Find features
- Export selected features from a file to a geodatabase
- Select features
- Examine an attribute table
- View data change over time
- Explore a map
- Navigate the map
- Modify symbology
- Identify features
- Locate addresses and features
- Select features and view an attribute table
- Review Test

## Performing spatial analysis

1. Lesson introduction
2. The geographic approach – revisited
3. Questions you can answer with GIS
4. What is spatial analysis?
5. Common analysis tasks
6. Perform spatial analysis with common analysis tools
7. Review Test

## Sharing results

- Lesson introduction
- The importance of sharing results
- Sharing contents
- Sharing content Online
- Export the map as a PDF
- Create a map package
- Create a web map
- Customize map symbology and save the map
- Create a web mapping application
- Review Test