COURSE CONTENT

Moving from CAD to GIS

Duration: 2 Days (16 Hours)

The course will be presented using ArcGIS Pro.

Day: 1

Lesson 1: CAD and GIS

- Discussing the history of CAD
- Discussing the history of GIS
- Benefits of using CAD and/or GIS
- CAD terminology vs GIS terminology
- Exercise 1: Exploring the ArcGIS Pro interface

Lesson 2: Data Capturing

- Understanding GIS data models
- Looking at the way data is typically being captured in a CAD
- Precision and accuracy in CAD and GIS
- Exercise 2: Capturing data in GIS

Lesson 3: Projections and Coordinate systems

- Introducing Coordinate systems
- Discussing Geographic and Projected coordinate systems
- Distortion and spatial properties
- Measurements of drawing linear units
- Georeferencing and Spatial adjustment
- Exercise 3A: Georeferencing CAD drawings
- Exercise 3B: Defining projections

Lesson 4: Understanding databases

- Discussing Database concepts
- Managing your GIS data
- Advantages of using geodatabases
- Organizing your data in a feature dataset
- Creating a geodatabase
- Using feature class properties
- Exercise 4: Importing and exporting data

Day: 2

Lesson 5: Importing data from CAD to GIS

- Using CAD data in GIS
- Considering CAD data formats
- Understanding CAD data structure in ArcGIS
- Working with CAD layers in ArcGIS
- Converting CAD files into GIS
- Ensuring data integrity
- Ensuring data alignment
- Exercise 5A: Converting CAD data into GIS data
- Exercise 5B: Convert GIS data to CAD data

Lesson 6: Editing

- Editing CAD data
- Editing in ArcGIS Pro
- What can you edit?
- Configuring ArcGIS Pro and your project for editing
- Layer symbology for editing
- Feature creation workflow
- Exercise 6A: Prepare Map for Editing
- Exercise 6B: Editing and modifying features

Lesson 7: Mapping and Visualising Drawings in ArcGIS

- Symbolizing layers
- Labelling and annotation
- Exercise 7A: Perform various visualization methods
- Exercise 7B: Working with labels
- Exercise 7C: Create annotation features

Lesson 8: Performing spatial analysis

- What is spatial analysis
- Select by attribute and location
- Exercise 8A: Select by attribute and select by location
- Exercise 8B: Simple spatial analysis

Lesson 9: Sharing Data

- Overview of sharing in ArcGIS Pro
- What is a map layout?
- Exercise 9A: Share items using ArcGIS Pro
- Exercise 9B: Create a Map layout