Introduction to Arc GIS I & GPS Basic Course

Date: 11 March 2018 - 15 March 2018
Course ID: ADDQ002/2018
Duration: 5 Days
Fee US$ - VAT is not included: 4200 US$
Venue: Kuwait

Introduction:

This course teaches what a GIS is and what you can do with it. Working with various components of the ArcGIS system, you will create GIS maps, explore and analyze the data behind the maps, and apply methods to easily share your maps. By the end of the course, you will have a solid understanding of how GIS maps and ArcGIS tools are used to visualize real-world features, discover patterns, obtain information, and communicate that information to others.

Who should attend:

Engineers planning and urban planning

Engineers coordination sites and Landscape

Specialists in the field of Literature Department of Geography

Specialists in the field of geographic information systems

Specializing in natural disasters

Authority officials urban planning

Authority officials divide the territory of the State

Researchers and academics

Agronomists

Researchers in the field of marketing and real estate marketing and trading

Government state bodies

In the field of Tourism and Antiquities

Communications

After sensing Gunn

Health

The field of investment and marketing

Daily Outlines:

Day One: Biding a GIS project

INTRODUCTION:

The aim of Part 1 of this exercise is for you to get an understanding of the way spatial data is organised in ArcMap and to explore some basic GIS procedures. By the end of this practical you should be able to:

• Open an existing ArcMap map project.

• Navigate and organise layers of data.

• Query layer features.

• Select features from a layer based on attribute.

• Perform simple locational and attribute queries.

View a classmate's version of the map

(Optional) Locate a user group related to your work or area of interest

Lesson review

3 Understanding GIS data

Lesson introduction

Turning geographic information into GIS data

GIS data models

Explore GIS data models in ArcMap

Which data model fits better?

Working with tables

Documenting your data

Exercise 3A: Explore GIS data using ArcMap

Open ArcMap and create a folder connection

View data in a GIS

Identify various file types

View an item description

Correct an error in an item's metadata

Preview a dataset's geography and table

Add data to the map

ArcGIS Online content

GIS services and web maps

Web mapping applications and mobile apps

Tools and data from ArcGIS Online

Exercise 3B: Explore GIS content using ArcGIS Online

Browse ArcGIS Online for web content

Browse ArcGIS Online for desktop content

View an item's details

Examine options for opening ArcGIS Online items

Lesson review

Day Two:

4 The importance of coordinate systems

Lesson introduction

What is location?

How spatial data stores location

Geographic coordinate systems

Working with data in different geographic coordinate systems

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

Three key concepts

Lesson review

5 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

Day Three:

Exercise 5: Gather and evaluate GIS data

Consider the data you need

Examine the data you have

Add data from another organization

Add data from ArcGIS Online

Transfer files from one geodatabase to another

Import shapefiles into the geodatabase

Lesson review

Day Four:

6 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

Exercise 6A: Explore a map using ArcMap

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

Exercise 6B: Explore a map using ArcGIS Online

Navigate the map

Modify symbology

Identify features

Locate addresses and features

Select features and view an attribute table

Lesson review

7 Performing spatial analysis

Lesson introduction

The geographic approach - revisited

Questions you can answer with GIS

What is spatial analysis?

Geoprocessing in analyses

Common analysis tasks

Perform spatial analysis with common analysis tools

Exercise 7: Analyze hurricane storm surge data

Open ArcMap and examine the map document

Extract features in your area of interest

Identify vulnerable facilities in Lee County

Overlay the Cat3 layer with Lee County

Identify close to the storm surge inundation polygon

Lesson review

Day Five:

Exercise 8: Share analysis results

Export the map as a PDF

Create a map package and upload it to ArcGIS Online

Create a web map

Customize map symbology and save the map

Create a web mapping application

(Optional) Access the web mapping application on a mobile device