GeoData

Introduction to ArcGIS Pro

COURSE OUTLINE

This course introduces the underlying principles and methods of Geographical Information Systems (GIS). It examines the processes involved in the capture, storage, manipulation, analysis, presentation and output of digital geographical data in a GIS and provides opportunities for the development of practical skills in processing data using an industry standard GIS software package.

The course comprises a series of presentations and computer-based practical sessions using ESRI's ArcGIS Pro software with example date sets taken from a variety of fields. Topics covered include: What is GIS, working with tables, visualising data, map production and basic analysis.

This course is intended for those who have little or no GIS knowledge or who wish to undertake some formalized training in ArcGIS Pro having been largely self-taught in the past.

By attending training with GeoData you can accrue CPD points towards the Chartered Geographer accreditation.
This course has been validated under the Association for Geographic Information CPD Scheme and it has been assessed for Royal Geography Society with IBG (RGS-IBG) Chartered Geographer (CGeog) accreditation (10 hours of CPD points).

ANTICIPATED COURSE OUTCOMES / ACHIEVEMENTS

Aims and objectives

- To provide delegates with an appreciation of the fundamental concepts of GIS including its strengths and limitations.
- To introduce the core functionality of ESRI's ArcGIS Pro software package.
- To teach the fundamental skills needed to obtain, import, manipulate, analyse, interpret, manage and output spatial data in order to investigate topics in the delegate's area of interest.
- To demonstrate real-world uses of GIS.

Learning outcomes - by the end of the course, delegates will have a knowledge and understanding of:

- What a GIS is; what spatial data is; raster and vector data models
- The core functionality of ArcGIS Pro.
- Visualising data
- Finding data and Data Management – Introduction to AGOL.
- Handling tables including selections and queries
- Creating and editing spatial data
- Basic Analysis – basic tools and automation
- Map Production and sharing maps.

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Day 1

1 - The what, why, how of GIS

What is GIS?
What does it mean?
Questions I can answer using GIS
Presenting data using GIS
What data can I use in a GIS?
GIS Applications

2 – Getting familiar with ArcGIS Pro

Logging in to ArcGIS Pro
What is a Project?
What is a Map?
What is a Layout?
What data can I view in ArcGIS Pro?

Exercise 2 - Getting Familiar with ArcGIS Pro

3 - Visualising Data

Symbolising vector data
Labelling vector data
Symbolising raster data

Exercise 3 – Visualising data

4 – Finding Data and Data Management

Project Structure
Data formats
Connection to AGOL
Portal and data upload/download
Living Atlas
WMS and WFS
Metadata

Exercise 4 – Data Management

5 - Working with tables

Table types
Using Excel and CSV data
Creating spatial data from CSV files
Creating and deleting attribute fields
Joining and relating tables
Generating summary statistics
Field calculator

Exercise 5 – Working with tables

Day 2

6 - Creating and editing data

Digitising basics
Creating features
Modifying existing features
Attributing

Exercise 6 – Creating and editing data

7 – Basic analysis

Basic tools
Selecting data
Automation

Exercise 7 – Basic Analysis

8 – Map production and sharing

Layouts in Pro
Export, print and online sharing

Exercise 8 – Creating a map layout

9 – Exploring 3D data

Local/Global scenes
Visualising data in 3D
Exploring 3D data

Exercise 9 – Visualising data in 3D

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