

ArcGIS 3: Performing Analysis

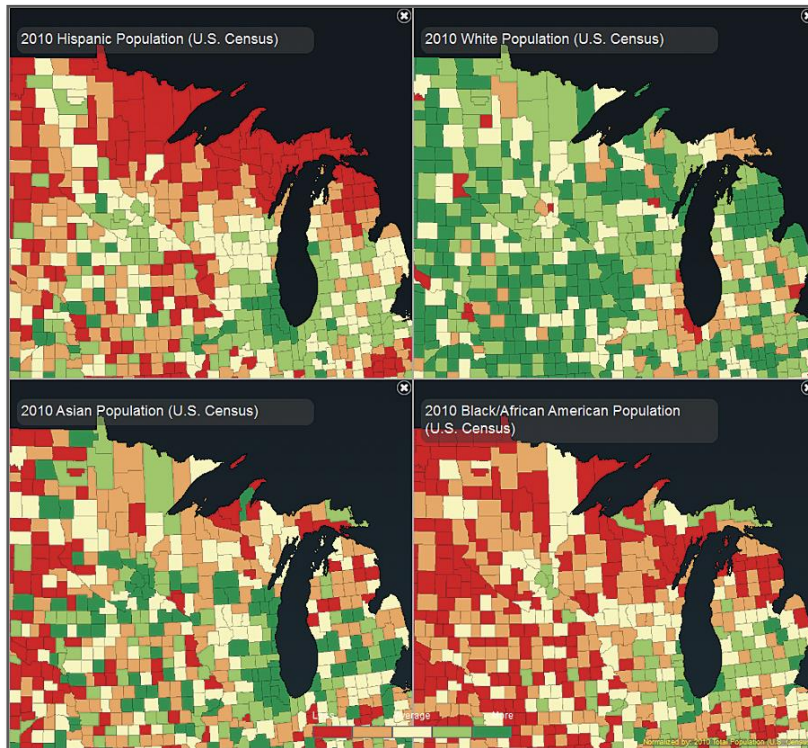
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SGD\$960 / pax

Level: Intermediate | Course duration: 2 days

Esri Singapore's intermediate GIS course for experienced users of ArcGIS Desktop, who want to focus on analysis.



What is the course about?

This course teaches a standard workflow you can apply to any GIS analysis.

Every analysis begins with a question and has criteria that must be considered. You will learn how the analysis question and criteria drive decisions about what data and tools will generate reliable information. Working with a variety of data and ArcGIS tools, you will perform different types of analysis to efficiently solve spatial problems.

This course is taught using ArcGIS for Desktop Advanced and some course exercises use tools provided in the ArcGIS Spatial Analyst extension.

Who is the target audience?

GIS analysts, specialists, and others who manage or conduct GIS analysis projects.

Are there any prerequisites?

Completion of [ArcGIS 2: Essential Workflows](#) or equivalent knowledge is required.

What skills will I learn?

After completing this course, you will be able to:

- Choose appropriate data, methods, and tools to plan, execute, and document a given analysis project
- Automate analysis tasks using geoprocessing models
- Create a weighted suitability model to select the optimal location for a new site
- Apply spatial statistics to examine distribution patterns and identify hot spots
- Model temporal data to analyse and visualise change over time
- Share analysis workflows and results so they are accessible and repeatable

Course topics

GIS analysis workflow

- Types of spatial analysis
- Steps in the workflow
- Options for sharing results

Preparing data for analysis

- Evaluating data quality
- Correcting spatial reference issues
- Sharing results as a map service

Proximity analysis

- Categories of proximity analysis
- Choosing the right tool based on the required output
- Measuring proximity: Geodesic or Euclidean?
- Performing proximity analysis to plan emergency response activities

Overlay analysis

- Techniques and tools
- Apportioning attributes
- Performing overlay analysis to estimate tornado damage
- Using model iterators and variables
- Creating geoprocessing packages to share results

Using raster data for suitability analysis

- Binary and weighted suitability models
- Suitability scales and levels of measurement
- Reclassifying data
- Determining the optimal location for a vineyard

Analysing spatial patterns

- Quantifying patterns using spatial statistics
- Spatial statistics tools
- Hot spot analysis
- Building a model to analyse the distribution of public safety incidents
- Sharing the model as a geoprocessing service

Modelling temporal data

- What is time-aware data?
- Analysing patterns in temporal data
- Working with animations and the time slider
- Sharing results as an animated map service