



Peter can see the difference training makes to his staff morale, staff who feel confident in performing their jobs are happier and more productive

Geoprocessing Raster Data using ArcGIS® Spatial Analyst

ESRI Australia's Training Solutions

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Why is it important

This course examines modelling techniques used in spatial analysis with an emphasis on suitability modelling using raster data. You will learn how to classify, weight, and combine data to identify sites suitable for a specific use. In course exercises, you will work with ModelBuilder to implement a suitability modelling workflow.

Designed for

This course is designed for GIS analysts and other experienced ArcGIS users who perform raster-based spatial modelling and analysis. Those who need to perform site selection (i.e., find the optimal location for sites such as a school, business, evacuation shelter, habitat, or housing development) will benefit.

Course Level: Intermediate

Learning Outcomes

- // Describe various types of models
- // Choose necessary data and tools for analysis
- // Create an appropriate suitability scale
- // Reclassify spatial data using various classification methods
- // Create binary and weighted suitability models
- // Model a suitability workflow within ModelBuilder
- // Document a model for reusability and sharing

Prerequisites

Completion of *ArcGIS Desktop II: Tools and Functionality*. A basic knowledge of rasters is required.

Recommended Reading

GIS, Spatial Analysis, and Modelling. David J. Maguire, Michael Batty and Michael F. Goodchild, Editors

The ESRI Guide to GIS Analysis, Volume 2: Spatial Measurements and Statistics. Andy Mitchell

Certain recommended books can be purchased online, by visiting the ESRI Australia online store at www.esriaustralia.com.au/onlinestore

Course Details

Software used in this course ArcGIS Desktop- ArcView/ArcEditor/ArcInfo 9.3
ArcGIS Desktop Extensions- ArcGIS Spatial Analysis 9.3

Duration 1 day

Commencement Dates For the latest course calendar please visit www.esriaustralia.com.au/training

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Course Content

Modelling spatial problems

- // Define what a model is
- // Describe different types of models
- // Describe the process of defining a model

Preparing for raster analysis

- // Define raster analysis
- // Explain the benefits of doing analysis
- // Derive questions from a given problem
- // Establish data needs and tool requirements

Determining suitability and assigning weights

- // Define what a suitability model is
- // Perform simple binary suitability modelling
- // Define classification methods
- // Reclassify data using various classification methods
- // Perform weighted suitability modelling

Building models

- // Create models from scratch
- // Add processes and set tool parameters
- // Create model variables and parameters
- // Edit existing models
- // Set up models to run as geoprocessing tools
- // Document a model

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About ESRI Australia

ESRI Australia is the source of astute professional services and Geographic Information Systems (GIS) technology. We're experts in location intelligence; with over 30 years experience in implementing GIS solutions in dozens of industries.

Our passion for technology and considered approach gives our clients the power to see more and do more. With our expertise, knowledge, vision and technical capability, we turn 'possibility' into 'reality'

ESRI Australia Training Solutions

Derive maximum benefit from your location intelligence solution by ensuring your workforce has the knowledge and skills to fully utilise our investment in GIS.

ESRI Australia offers a complete range of training services to help educate and support your solution end users and administrators. With courses for beginners,

Intermediate and advanced users, ESRI Australia caters for all skill sets and educational requirements.

Our courses are taught by ESRI authorised instructors, which means that your employees can be assured of receiving consistent quality GIS training by accredited trainers.

Our flexible training options range from developing and delivering a complete training program for your organisation through to a range of scheduled courses held at centrally located training facilities.

With a client site, scheduled or knowledge transfer training available, ESRI Australia can provide the solution to meet your organisations training needs.