

## ArcGIS 3 – Spatial Analysis

### **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

### **Analyzing spatial patterns**

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

### **Modeling temporal data**

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