

Spatial Analysis and Modeling, Part II Workshop Agenda

Description: This workshop builds on Spatial Analysis and Modeling, Part I by exploring more advanced training in spatial theory and methods and their application to unique geographic problems. The workshop will expand on spatial analysis concepts and topics including hydrologic and terrain analysis, spatial interpolation, point and areal pattern analysis, and building more complex models (ArcGIS ModelBuilder and Introductory concepts of Python scripting for ArcGIS). Related software for conducting spatial analysis will also be presented. Training will primarily be based on the ArcGIS 10 suite of software. Class format: approximately 50% lecture, 50% software applications.

Day 1

- What is Spatial Analysis?
- **Lecture 1:** Spatial Statistics
- Hands-on Training: Point Pattern Analysis
- **Lecture 2:** Spatial Statistics
- Hands-on Training: Areal Pattern Analysis
- Lunch Provided (1 hr)
- **Lecture 3:** Spatial Statistics (Geostatistics)
- Hands-on Training: Spatial Interpolation (Inversed Distance Weighted to Kriging)
- **Lecture 4:** Hydrologic and Terrain Analysis
- Hands-on Training: Hydrologic and Terrain Analysis

Day 2

- **Lecture 5:** Geoprocessing Models
- Hands-on Training: Building Simulation Models using ArcGIS ModelBuilder
- Lunch Provided (1 hr)
- **Lecture 6:** Geoprocessing Models
- Hands-on Training: Basics of Python Scripting for ArcGIS
- **Lecture 7:** Beyond ArcGIS: Software for Geoprocessing