Spatial Analysis and Modeling, Part I
Workshop Agenda

Description: This workshop provides an introduction to some of the fundamental concepts and concerns of spatial analysis and modeling in a geographic information system. Topics will include: basics of vector and raster data analysis, proximity and overlay principles, distance modeling, terrain analysis, categorical and continuous classification, site suitability modeling, statistical modeling, and building geoprocess models using ArcGIS ModelBuilder. Training will 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:** Vector Analysis
- Hands-on Training: Vector Proximity and Overlay

- **Lecture 2:** Raster Analysis
- Hands-on Training: Map Algebra

- Lunch Provided (1 hr)

- **Lecture 3:** Terrain Modeling
- Hands-on Training: Deriving Terrain Attributes

- **Lecture 4:** Distance Modeling
- Hands-on Training: Distance and Cost Distance Models

Day 2
- **Lecture 5:** Suitability Modeling (Vector)
- Hands-on Training: Site Suitability, Part 1

- **Lecture 6:** Suitability Modeling (Raster)
- Hands-on Training: Site Suitability, Part 2

- Lunch Provided (1 hr)

- **Lecture 7:** Statistical Modeling
- Hands-on Training: Predictive Surfaces from a Statistical Model

- **Lecture 8:** Geoprocessing Models
- Hands-on Training: Constructing Models using ModelBuilder