ArcGIS Geostatistical Analyst
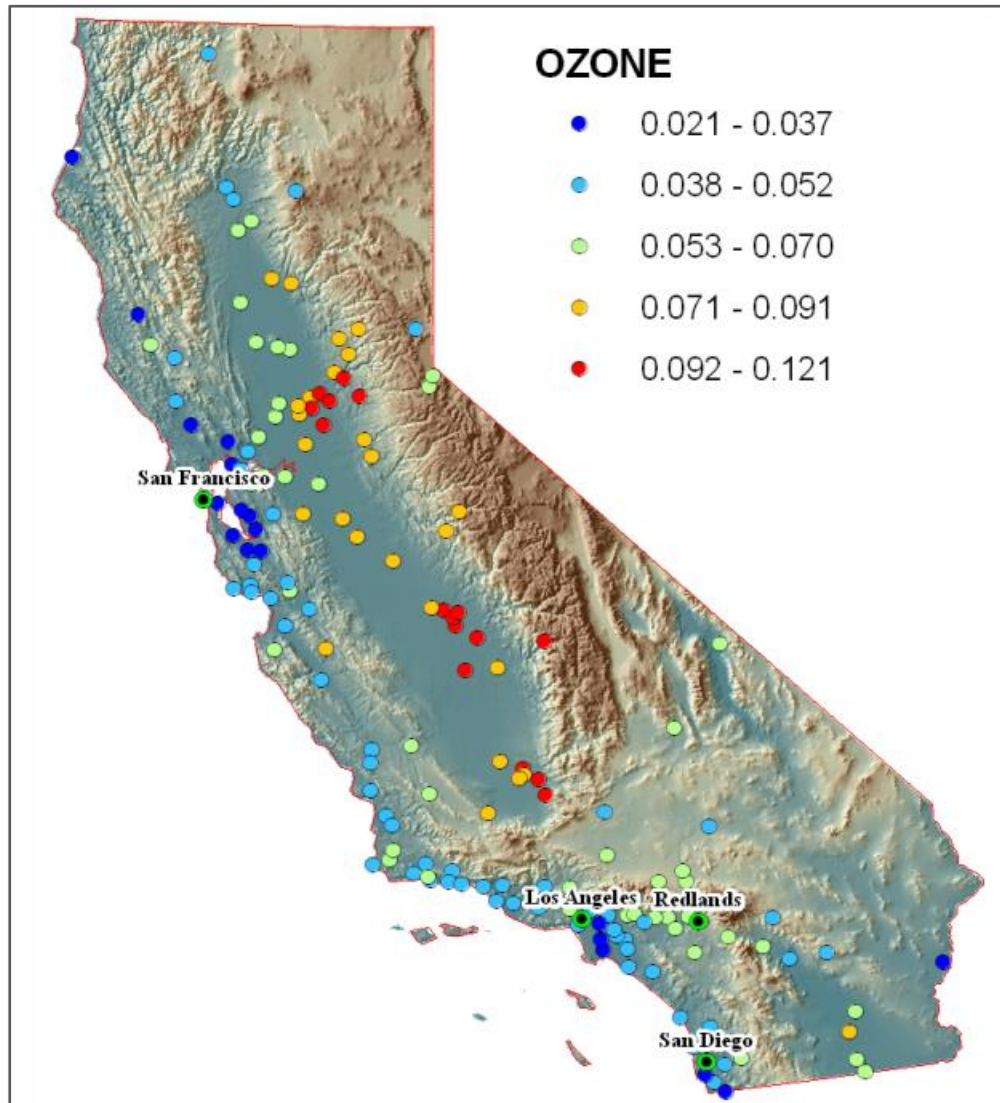## ArcGIS Desktop extensions

Register now

SGD$480 / pax

Level: Advanced | Course duration: 1 day

ArcGIS Geostatistical Analyst extension offers a suite of interactive tools to visually investigate your data prior to analysis.

What is the course about?

Learn how to create a probabilistic framework for quantifying uncertainties in data which is incomplete or subject to error by creating surfaces from sample data using various interpolation methods and deriving models to improve decision making by enhancing surfaces.

Who is the target audience?

ArcGIS users who want to know how to create surfaces that can be used to visualize, analyze and understand spatial phenomena.

Are there any prerequisites?

Completion of ArcGIS 3: Performing Analysis and ArcGIS Spatial Analyst is required.

What skills will I learn?

After completing this course, you will be able to:

- Create surface modeling using deterministic and geostatistical methods
- Generate interpolation models and assess their quality before using them in any further analysis
- Know how to use models to generate predictions for unsampled locations, as well as measures of uncertainty for those predictions

Course topics

Understanding Geostatistics

- Interpolation and methods
- The geostatistical workflow

Examining Data

- Data mapping
- Quantitative data exploration
- Data distribution
- Looking for global/local outliers and trends
- Spatial autocorrelation
- Voronoi map

Creating Surfaces

- Deterministic methods
- Inverse distance weighted
- Global/Local polynomial interpolation
- Radial basis functions
- Interpolation with barriers

Geostastical Methods

- Components of geostatistical models
- Empirical semivariogram and Binning
- Anisotropy
- Fitting a model to the empirical data
- Model parameters
- Handling trends
- Different kriging models

Evaluating Interpolation Results

- Cross-validation
- Result Plots
- Prediction error statistics
- Comparing models