

## **Excel 2007 For Scientists**

**Description:** This course is designed specifically for scientists and engineers who use Excel in analysis and presentation of experimental results. Topics include functions and statistics, solving equations, charting for scientists, data analysis, and report writing.

**Days:** 2

**Prerequisites:** Intermediate Excel skills are required.

### **Unit 1: Graphs for Science**

- Types of Graphs
- Standard Deviation Error bars
- Secondary axes
- Frequencies and histograms
- Interpolation/Extrapolation
- Adding Inserts to Graphs
- Complicated Graph manipulation
- Marking specific data points
- Default Graphs

### **Unit 2: Regression Analysis**

- Single Regress: Slope + intercept
- Linear regression Lines
- Non-linear regression

- Curve fitting
- Sigmoid Curves (logistic)
- Multiple linear regression
- Solving equations
- Controls for Simulations
- Creating your own functions

### **Unit 3: Statistical Analysis**

- Sample and Sampling distributions
- Random Number Generation
- Normal Distributions
- Student's t-Distributions
- Chi-Squared Distributions
- Estimating with confidence
- Testing with significance
- Analysis of Variance (Anova)
- When to use what

### **Unit 4: Data Analysis**

- Details and summaries
- Sorting/Filtering records
- Marking specific values/records
- Nesting functions inside functions
- Locating interpolated values
- Validating data entry
- Multi-Cell Array Formulas
- Single-Cell Array Formulas
- Calculating with Date and Time

## **Upcoming Classes**

Sorry, there are no upcoming classes. Feel free to contact us if you're interested in us putting a class together.