

# Excel 2013 Advanced Stats, Part 4: Regression

page 1

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**Prerequisites:** This course assumes some familiarity with Microsoft Excel. This course is part of 4 courses; Excel 2013 Advanced Stats: Sample for Mean; Excel 2013 Advanced Stats: F-Test and ANOVA; Excel 2013 Advanced Stats: Trend and Two-Factor; and Excel 2013 Advanced Stats: Regression. Please be sure to view the courses in order if you are new to the material.

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**Course description:** Master statistical analysis with Excel 2013 with this four part learning series of courses . Big data is big business, and many professionals are turning to Excel's data analysis tools to help them make sense of their organizational data. Now, you can learn the ins and outs of statistical analysis with Excel – from importing data to utilizing Pivot Tables – with Statistical Analysis with Excel 2013 Advanced Skills. Understand Excel's data analysis capabilities and how they can be applied in your organization. Work with data, normal distributions, hypothesis testing, variances, rank, and percentiles. Take advantage of formulas, Pivot Tables, dashboards, and reporting tools to display your data.

## Course outline:

### Introducing Regression

- Introduction
- Scatterplots
- The Regression Line
- Regression Line in Excel
- Predicted & Residual Values
- Sum of Squares & Mean Squares
- Test of the Hypothesis
- R Squared & R Values
- Summary

- Correlation Concepts
- Covariance of X and Y
- Calculate Covariance
- Correlation Coefficient
- Summary

### Data Analysis for Correlation

- Introduction
- Apply the Data Analysis Tool
- Multiple Correlation
- Importing Data from the Web
- Applying the Correlation Tool
- Summary

### Regression Functions

- Introduction
- Array Names
- Calculating with Array Names
- Create ANOVA Table
- Using the LINEST Function
- Regression Data Analysis Tools
- Regression Results
- T-Test & More Results
- Summary

### Multiple Regression

- Introduction
- Multiple Regression
- 3D Bubble Plot
- Calculate with Trend
- LINEST Function
- Analysis & Multiple Regression
- ANOVA & Residual Output
- Summary

### Correlation

- Introduction