





# Self-help Statistics Resources

Course/Tutorial	Content	URL
<p><b>Khan Academy</b> </p> <p>Free access via your browser</p>		
Statistics and Probability	Introductory mathematical concepts: Categorical data and analysis; quantitative data – displaying, summarizing, modelling. Bivariate numerical data. Probability, sampling distributions. Confidence intervals, significance (hypothesis) testing. Inferential statistics including chi-squared, regression and analysis of variance (ANOVA)	<a href="https://www.khanacademy.org/math/statistics-probability">https://www.khanacademy.org/math/statistics-probability</a>
<p><b>Lynda.com</b> <a href="https://www.jcu.edu.au/library/learn/lynda">https://www.jcu.edu.au/library/learn/lynda</a></p> <p>Free access; log on using your JCU username and password</p>		
<b>Statistics Foundations 1:</b>	Descriptive statistics; mean, median, range, standard deviation, spread of data, distribution curves, probability, z-score as a measure of distance from the mean.	<a href="https://tinyurl.com/y2n2om2m">https://tinyurl.com/y2n2om2m</a> <ul style="list-style-type: none"> <li>or log into Lynda.com and search for <u>Statistics Foundations 1</u></li> </ul>
<b>Statistics Foundations 2:</b>	Collecting data; simple random sample; assessing data validity, data size, sample size and population, hypothesis testing.	<a href="https://tinyurl.com/y6hjttyp">https://tinyurl.com/y6hjttyp</a> <ul style="list-style-type: none"> <li>or log into Lynda.com and search for <u>Statistics Foundations 2</u></li> </ul>
<b>Statistics Foundations 3:</b>	small sample sizes, comparisons of two populations, chi-square Goodness of Fit, ANOVA and regression.	<a href="https://tinyurl.com/y36azl6y">https://tinyurl.com/y36azl6y</a> <ul style="list-style-type: none"> <li>or log into Lynda.com and search for <u>Statistics Foundations 3</u></li> </ul>
<b>Excel Statistics Essential Training: 1</b>	Fundamental concepts of descriptive and inferential statistics and how to apply them using Microsoft Excel. Hypothesis testing; ANOVA, Regression, Correlation	<a href="https://www.lynda.com/Excel-tutorials/Excel-2016-Essential-Training/376985-2.html">https://www.lynda.com/Excel-tutorials/Excel-2016-Essential-Training/376985-2.html</a> <ul style="list-style-type: none"> <li>or log into Lynda.com and search for <u>Excel Statistics Essential Training 1</u></li> </ul>



<b>Excel Statistics Essential Training: 2</b>	Using statistical concepts and tools to perform analysis in Excel. Organising and presenting data, Solver and Analysis ToolPac add-ons. Linear, multiple and non-linear regression, forecasting and running simulaitions.	<a href="https://www.lynda.com/Tableau-tutorials/Statistics-Excel-Part-Two/455718-2.html">https://www.lynda.com/Tableau-tutorials/Statistics-Excel-Part-Two/455718-2.html</a> or log into Lynda.com and search for <u>Excel Statistics Essential Training 2</u>
<b>SPSS for Academic Research (released 2017)</b>	How to run and interpret data for the most common types of quatitative tests using SPSS: t-tests, ANOVA, statistical measurement. Also covers data types, sample size, normal distribution, Central Limit Theorem.	<a href="https://www.lynda.com/SPSS-Statistics-tutorials/SPSS-Academic-Research/606072-2.html">https://www.lynda.com/SPSS-Statistics-tutorials/SPSS-Academic-Research/606072-2.html</a> <ul style="list-style-type: none"><li>• or log into Lynda.com and search for <u>SPSS For Academic Research</u></li></ul>
<b>SPSS Statistics Essential Training (released 2014)</b>	Importing spreadsheets, build charts, calculate descriptive statistics, t-tests, chi-squares, correlations, contingency tables, multiple regression analysis, formatting and exporting presentations	<a href="http://tinyurl.com/yy2dj8kz">http://tinyurl.com/yy2dj8kz</a> <ul style="list-style-type: none"><li>• or log into Lynda.com and search for <u>SPSS Statistics Essential Training</u></li></ul>
<b>R for Excel Users 2016</b>	Introduction to R for those familiar with Excel and basic statistics. Installing R; DescTools; working between Excel and R; bivariate analysis  <i>Note: RDCOMClient not visible in packages list, instead paste this command and hit enter.</i> install.packages("RDCOMClient", repos = "http://www.omegahat.net/R")	<a href="https://www.lynda.com/Excel-tutorials/R-Excel-Users/474684-2.html">https://www.lynda.com/Excel-tutorials/R-Excel-Users/474684-2.html</a> <ul style="list-style-type: none"><li>• or log into Lynda.com and search for <u>R for Excel Users</u></li></ul>
<b>R statistics Essential Training 2013</b>	Introduces and uses R Studio; importing data; working with data files; colour palettes; charting one variable; descriptive statistics; bivariate plots and statistics; multivariate plots and statistics	<a href="https://www.lynda.com/R-tutorials/R-Statistics-Essential-Training/142447-2.html">https://www.lynda.com/R-tutorials/R-Statistics-Essential-Training/142447-2.html</a> <ul style="list-style-type: none"><li>• or log into Lynda.com and search for <u>R Statistics Essential Training</u></li></ul>
<b>Learning R Released 2013</b>	More compact version of above.	<a href="https://tinyurl.com/yxhkkfts">https://tinyurl.com/yxhkkfts</a> <ul style="list-style-type: none"><li>• or log into Lynda.com and search for <u>Learning R</u></li></ul>
<b>There are many free on-line books/tutorial you can access, such as...</b>		
<b>R for Data Science</b>	Importing, structuring, transforming, visualizing and modelling data.	<a href="https://r4ds.had.co.nz/">https://r4ds.had.co.nz/</a>
<b>Python for Data Science Essential Training</b>	Charts, time series and statistical plots; data analysis basics, Machine learning introduction and methods	<a href="http://tinyurl.com/y2k3bnmx">http://tinyurl.com/y2k3bnmx</a> <ul style="list-style-type: none"><li>• or log into Lynda.com and search for <u>Python for Data Science Essential Training</u></li></ul>