

EXCEL GRAPH / SPREADSHEET CHECKLIST

Here is a checklist of features that Instructors often look for, and/or grade on, when evaluating Excel spreadsheets and charts. The ideas behind the list are simple: (1) make spreadsheets and charts look like professional tables and graphs, such as you have seen many times, and (2) the more and better your labels, the easier it is for a reader to understand your work. Your Instructor may modify this somewhat, but the concepts are still the same. If you use this to check your work, it will help you generate a better lab product.

1. SPREADSHEETS

_____ Every column has a heading to identify the listed quantity.

_____ Units are shown for each column of numbers. The simplest way to do this is to provide a row, just below the column heading, that indicates the units of all items in the column.

_____ All entries in a single column should have the same numeric format (e.g., all fixed with two decimal places, or all in exponential notation with one decimal place, etc.), if appropriate for the number of significant figures. Decimal points should be aligned, or the numbers should be centered.

_____ It should be clear which column of numbers goes with which heading. Center or justify headings to make that obvious.

_____ All entries, including calculated results, should show the correct number of significant figures, based on the data.

_____ If more than one data set is calculated or plotted in the lab, clearly identify the data and plots by labels.

2. CHARTS

_____ Graphs (Charts) are of the X-Y (Scatter) type. A graph of “a vs. b” has the quantity “a” as the dependent variable, plotted on the vertical axis, while “b” is the independent variable, plotted on the horizontal axis. Adjust scales so that data fills most of the chart.

_____ Axes are labeled with the types of quantities plotted, and their units.

_____ ‘Tick’ marks are shown on axes, and axes values are spread out sufficiently for clarity.

_____ Graphs show data and, if appropriate, the trendline fit to the data, on the same chart. Display the trendline (regression) equation and R^2 value. If more than one data set is plotted, use a legend or text boxes to identify them. Delete the legend if there is only one data set.

_____ Data is plotted as points only, not connected by lines (unless instructed otherwise).

_____ Trendlines are plotted as lines only; individual regression points are not shown.

_____ Each graph has a title. The title should identify the data or inform the reader why that particular graph is useful. Titles such as ‘y value vs x value’, which simply repeat the axis labels, are not acceptable.

_____ Spreadsheet and graph print-outs are not broken illogically onto different pages. Use ‘Print Preview’ to check. Use landscape mode, or logical print blocks, if necessary.

_____ Spreadsheets and graphs are of sufficient size to be completely legible.