

Introduction to Social Data Analytics

Class 5

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Today's Structure

- Plotting in Excel
 - Download and open class5.xlsx if you haven't already.
- Work in pairs and help each other as needed.

Today's Learning Objectives

From Pre Class 5 Exercise:

- nested IF statements, IFNA, COUNTIFS, status bar sum, insert scatterplot, edit titles and axis labels

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After today, you should be able to:

- Create the following plots in Excel: scatter, histogram, bar, pie
- Add elements to plots including titles, axis labels, trendlines, etc.
- Adjust axis ranges, bin sizes, and colors

The basics of Excel plots

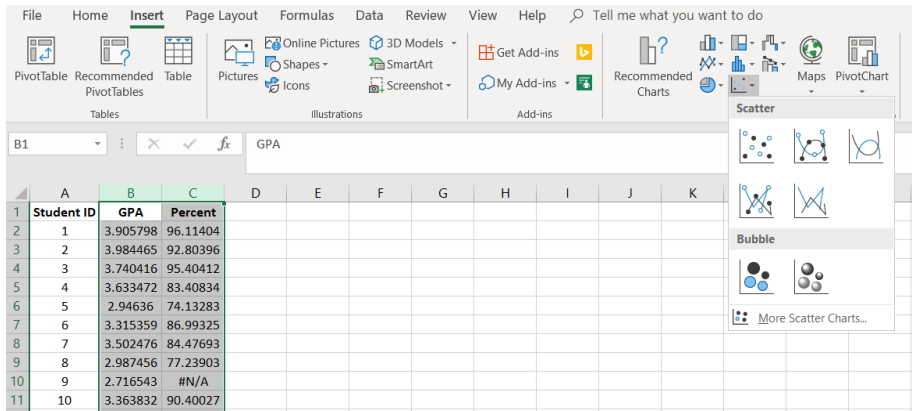
The screenshot shows the Microsoft Excel interface with the **Insert** tab selected. The ribbon includes options for PivotTable, Recommended PivotTables, Table, Pictures, Illustrations (Online Pictures, Shapes, Icons, 3D Models, SmartArt, Screenshot), Add-ins (Get Add-ins, My Add-ins), Recommended Charts, Maps, and PivotChart. Below the ribbon, the active cell is B1, containing the text 'GPA'. The worksheet displays a table with the following data:

	A	B	C	D	E	F	G	H	I	J	K
1	Student ID	GPA	Percent								
2	1	3.905798	96.11404								
3	2	3.984465	92.80396								
4	3	3.740416	95.40412								
5	4	3.633472	83.40834								
6	5	2.94636	74.13283								
7	6	3.315359	86.99325								
8	7	3.502476	84.47693								
9	8	2.987456	77.23903								
10	9	2.716543	#N/A								
11	10	3.363832	90.40027								

On the right side, the **Scatter** chart selection menu is open, showing various chart types including Scatter, Bubble, and Line charts. The **Scatter** section is highlighted, and the **More Scatter Charts...** option is visible at the bottom.

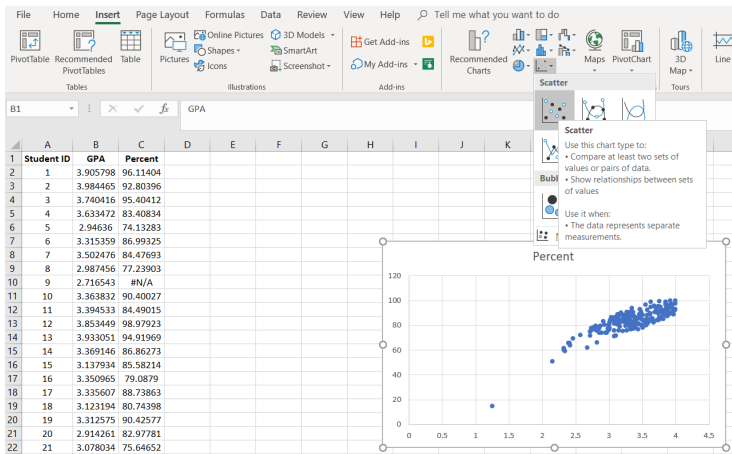
- First, select relevant data (e.g. columns B and C)

The basics of Excel plots



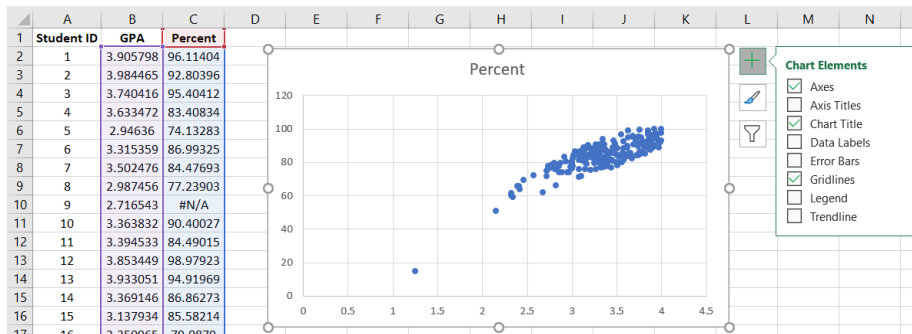
- First, select relevant data (e.g. columns B and C)
- Second, via the Insert tab, choose the plot category you want to create (e.g. Scatter)

The basics of Excel plots



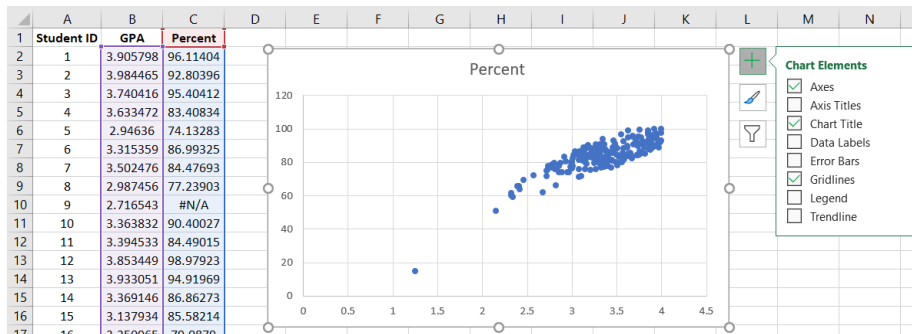
- Third, hover over the plot type and check the preview. Click if it's the plot type you want to create.

Adding elements to a plot



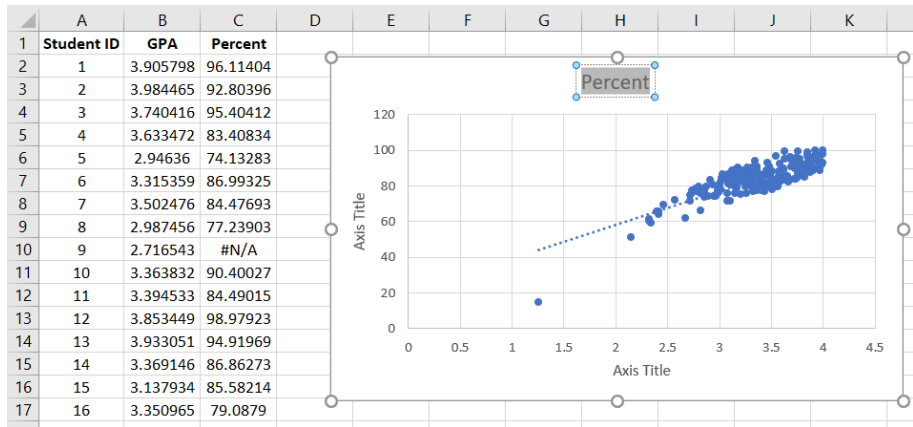
- Select the plot and click the plus near the top right corner

Adding elements to a plot



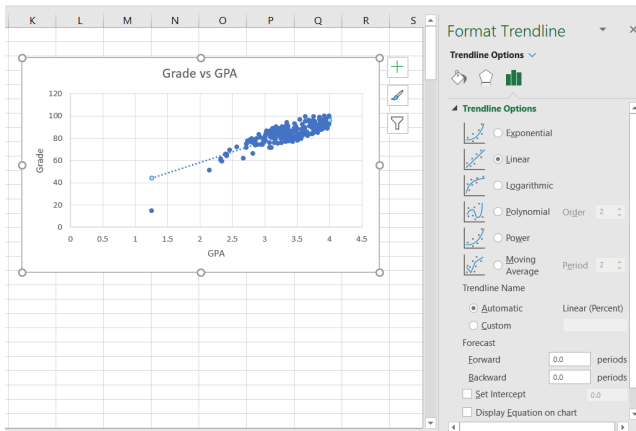
- Select the plot and click the plus near the top right corner
- Add axis titles and a trendline

Editing plot label text



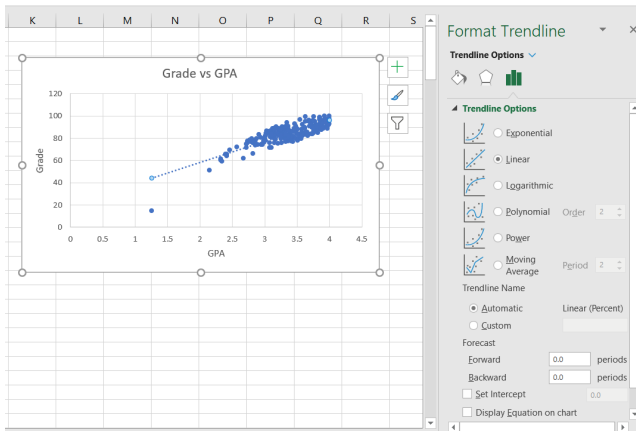
- Click the plot title and axis titles to edit the text

Changing the trendline options



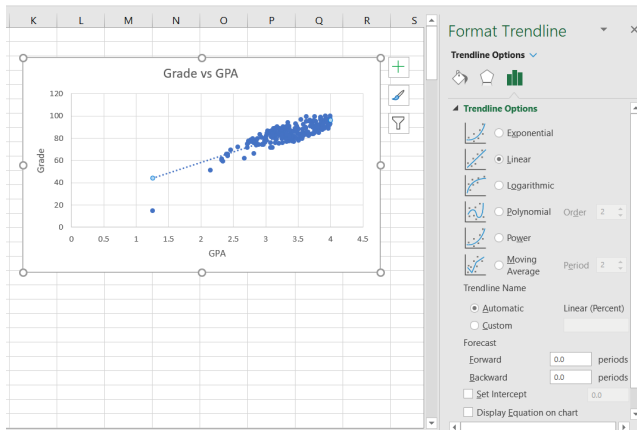
- Right-click the trendline and select “Format Trendline”

Changing the trendline options



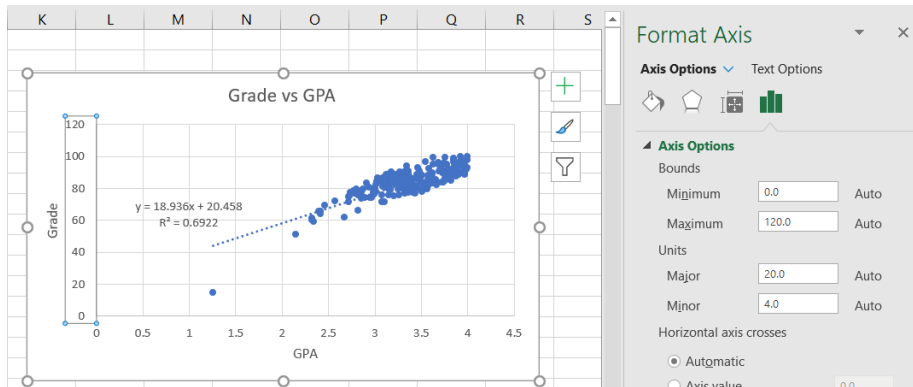
- Right-click the trendline and select “Format Trendline”
- Navigate to the rightmost sub-menu (looks like a barplot)

Changing the trendline options



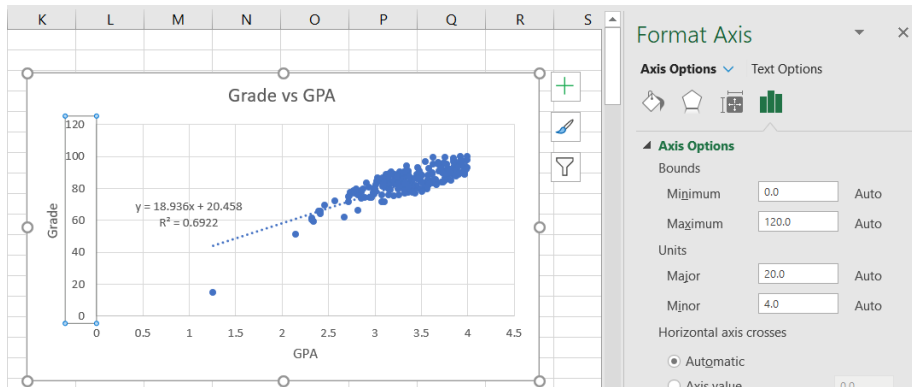
- Right-click the trendline and select “Format Trendline”
- Navigate to the rightmost sub-menu (looks like a barplot)
- Select “Display Equation on chart” and “Display R-squared value”

Editing axis scaling



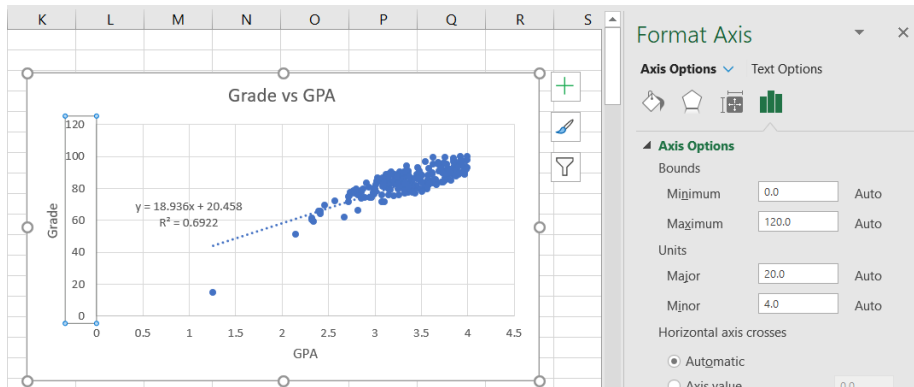
- Right-click the y-axis and select "Format Axis"

Editing axis scaling



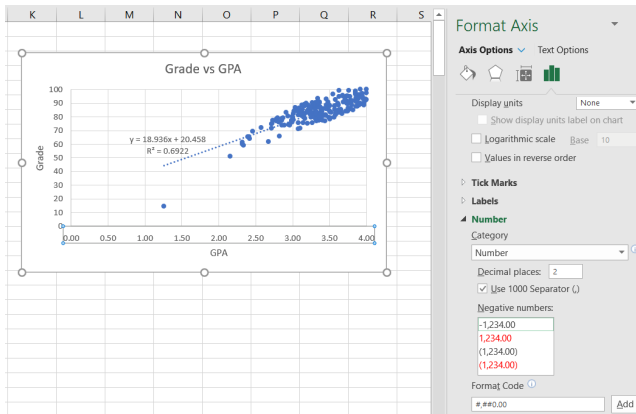
- Right-click the y-axis and select "Format Axis"
- Set the maximum bound to 100

Editing axis scaling



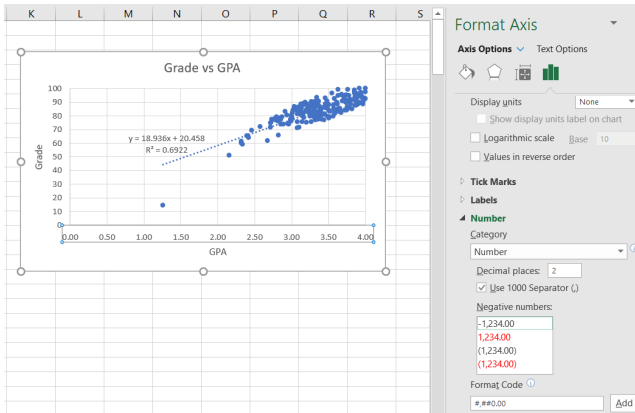
- Right-click the y-axis and select "Format Axis"
- Set the maximum bound to 100
- Click the x-axis and set the max bound to 4.0

Editing axis scaling



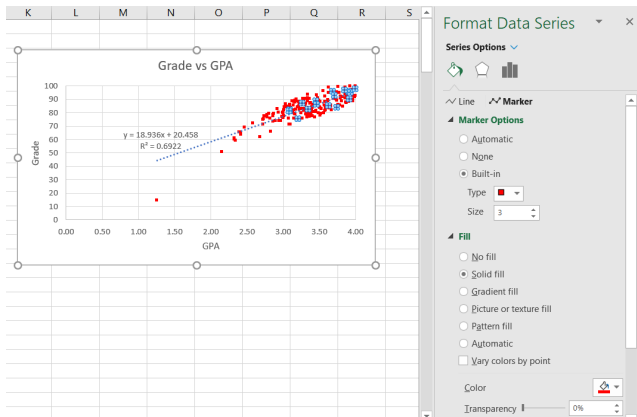
- Towards the bottom of the “Format Axis” menu, click the “Number” sub-sub-menu

Editing axis scaling



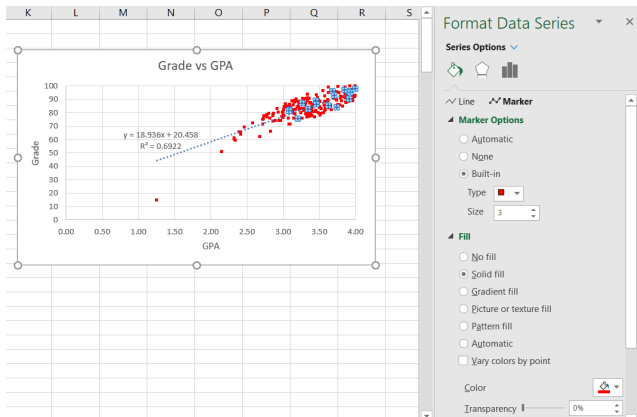
- Towards the bottom of the “Format Axis” menu, click the “Number” sub-sub-menu
- Change the category to “Number” and ensure there are two decimal places

Changing colors



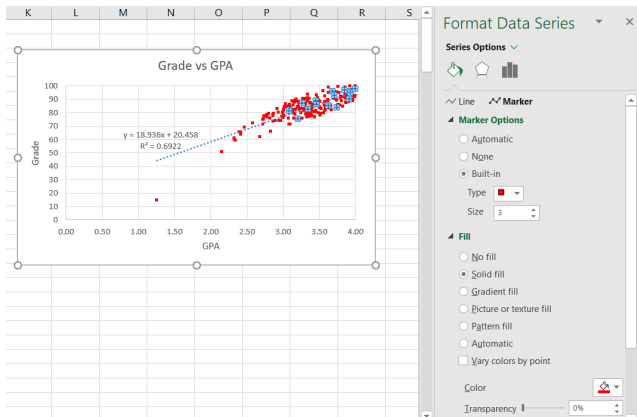
- Right-click a point in the plot and select “Format Data Series”

Changing colors



- Right-click a point in the plot and select “Format Data Series”
- Navigate to the leftmost sub-menu (paint can), and select “Marker”

Changing colors



- Right-click a point in the plot and select “Format Data Series”
- Navigate to the leftmost sub-menu (paint can), and select “Marker”
- Change the following: type, size, fill color, border color

The rest of today's class

- Try creating a histogram, barplot, and pie chart

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- Try creating a histogram, barplot, and pie chart
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- An example of each plot is shown on the first sheet (“Data”)
- Help your partners, and we'll finish the rest of the plots on Friday.

Next class

Friday we will continue plotting in Excel.

See you then!