

# Assignment 1: Graphics

Due: **Friday, October 4, 2024**

Find a graph drawn from data and published in a paper on which your thesis supervisor is a co-author. The graph should be one that you feel could be much improved. If your supervisor is flawless, pick a graph by another in your group or department. **Students from the same lab: don't choose same or very similar graphs.**

Analyze the graph in a few sentences. Explain the study. Explain what patterns the graph is intended to display. Explain the flaws in the graph - why does it not succeed?

Recreate the graph in R using principles of effective display. Try to obtain and make use of the raw data. Otherwise you could try extracting data from the graph using something like:

1. [DataThief](#)
2. [metaDigitise](#)
3. [magick](#)
4. [A tutorial based on ggplot2](#)

Note: I have not tested these. If that fails, you could simulate similar data.

Analyze your new graph according to principles of good graph design. Explain how your improvements display the patterns more effectively than the original. Why does your graph succeed?

Email your assignment to [imgonigl@sfu.ca](mailto:imgonigl@sfu.ca) as a single pdf file with filename: `LASTNAME_FIRSTNAME_ASSIGNMENT1.pdf`

Do not forget to attach your R code.

## Rubric

1. Quality of your analysis of the original graph [5 points]
2. Degree of improvement of the new graph [5 points]
3. Quality of your R code [5 points]  
*Annotated, readable, and "general" organization.*