**ESS474 2024 - R Coding resources for the Final Lab Project**

**Insert a picture into R:**knitr::include\_graphics("office\_square.jpeg")

<https://www.jumpingrivers.com/blog/knitr-include-graphics-external/>

**Adding a title, caption, etc. to ggplot:**# Add titles

p <- p + labs(title = "Effect of Vitamin C on Tooth Growth",

              subtitle = "Plot of length by dose",

              caption = "Data source: ToothGrowth")

<https://www.datanovia.com/en/blog/ggplot-title-subtitle-and-caption/>

**Regression line:** lm() <https://www.theanalysisfactor.com/linear-models-r-plotting-regression-lines/>

**Adding text to plots (for example, regression line equation, R^2 value):** use the annotate() command in ggplot (<https://ggplot2.tidyverse.org/reference/annotate.html>)

**Box plots, bar charts:**  +geom\_boxplot(), geom\_bar <https://ademos.people.uic.edu/Chapter11.html>

**Facet wrapping**: ggplot() + facet\_wrap <https://ggplot2-book.org/facet>

**Headings and lists:** <https://ucsbcarpentry.github.io/R-markdown/03-headings-lists/index.html>

**Sharing code:**Github or google docs or sharepoint (remember interoperability of code contributions is important)

**Citations**- given there should be around 5-8 citations, manually typing them is fine. If you want to be more ambitious, or have a citation management software (References: Zotero or Mendeley) installed already, there is interoperability between those and RStudio through the .bib file type. See <https://rmd4sci.njtierney.com/citing-articles-bibliography-styles.html>

**Additional resources:**

Your first step for any coding-related questions should be the previous labs, which have model code and can be slightly modified to answer many of the final report’s questions.

The second step should be to check this document and the content in the provided weblinks to see if that helps. And the pdfs in the “R Resources” module on the Modules page on Canvas.

Thirdly, you can consult with your team-mates, including the designated R “Expert” in your team.

Fourth, you should google your problem (and/or the verbatim error message you’re getting, put in quotation marks) and add “R” afterwards. Pretty much any error or issue has been experienced by someone else before and there should be documented solution with the right fix somewhere online (e.g. stack overflow)

If none of these solve your issue, then: please email Alan your coding-related questions. Include your .Rmd file if applicable. I will reply as soon as I can.

If you want help in-person in my Wednesday office hours please do not just show up to the office hours and ask for help. Please instead email me your questions at least 24 hours in advance so I can research the correct answer properly in time.