**Learning R, Visualization with ggplot2, and Summary Tables with gtsummary**

This guide provides useful resources for students to effectively learn R programming, data visualization using ggplot2, and creating publication-ready summary tables with gtsummary.

### Getting Started with R Programming

1. **R for Data Science** by Hadley Wickham & Garrett Grolemund  
   A comprehensive, beginner-friendly introduction to R, data manipulation, and analysis.  
   → https://r4ds.hadley.nz/
2. **Swirl: Learn R in R**  
   An interactive package that teaches R programming inside the R console.  
   → https://swirlstats.com/
3. **Quick-R Tutorial**  
   Great for transitioning from Excel/SPSS/SAS to R.  
   → https://www.statmethods.net/

### Data Visualization with ggplot2

1. **ggplot2 Reference by Posit (formerly RStudio)**  
   Official and detailed documentation with examples.  
   → https://ggplot2.tidyverse.org/
2. **Data Visualization with ggplot2 (RStudio Cheatsheet)**  
   A downloadable 2-page summary of the main functions and syntax.  
   → https://posit.co/resources/cheatsheets/
3. **Cookbook for R - Graphics**  
   Practical recipes for common charts using ggplot2.  
   → http://www.cookbook-r.com/Graphs/
4. **R Graph Gallery**  
   Hundreds of visualization examples with R code.  
   → https://www.r-graph-gallery.com/

### Summary Tables with gtsummary

1. **gtsummary Package Documentation**  
   Official guide with functions and customizations.  
   → https://www.danieldsjoberg.com/gtsummary/
2. **Create Publication-Ready Tables in R with gtsummary (Tutorial)**  
   Intro tutorial on descriptive statistics, regression results, and table formatting.  
   → https://www.r-bloggers.com/2020/09/publication-ready-tables-in-r/
3. **gtsummary Vignettes**  
   Real-world usage examples straight from the package authors.  
   → https://www.danieldsjoberg.com/gtsummary/articles/

### Supplementary Resources

* **Posit Cloud (formerly RStudio Cloud)**: Use RStudio in the browser without installing anything.  
  → https://posit.cloud/
* **Tidyverse.org**: Learn more about tidyverse packages including dplyr, tidyr, and more.  
  → https://www.tidyverse.org/
* **Coursera - R Programming by Johns Hopkins University**: Structured learning path and quizzes.  
  → https://www.coursera.org/learn/r-programming