

PSYCH 705 – Statistical Methods in Psychology

Tuesdays 5:30pm – 8:20pm

Dr Lily Johnson-Ulrich

Pre-class Checklist

- ☐ Download R from CRAN: <https://cran.r-project.org/>
- ☐ Download R Studio: <https://posit.co/download/rstudio-desktop/>
- ☐ Download Git: <https://git-scm.com/downloads>
- ☐ Create a GitHub Account: <https://github.com>

A little about me



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A little about you

- What is your name and preferred pronouns?
- What lab group are you in?
- Do you know anything about the project you'll be working on for your MSc degree?
- What is your statistical experience?
- Have you ever heard of or used **R**?
- Have you ever heard of or used **GitHub**?

Aims of this course

- Apply analytical methods to behavioral data using **R**, including data wrangling, visualization, and statistical model fitting
- Develop reproducible workflows using R Studio and GitHub for version control, project management, and open science practices
- Critically evaluate and interpret the design and analysis of statistical outputs to draw biologically meaningful conclusions
- Integrate ecological theory and statistical methods to design and analyze studies that address animal behavior research questions

Today's lesson plan

- Introduction to R
 - Navigate R Studio
 - Learn about R scripts and R markdown
 - Write basic R code
- Introduction to GitHub
 - Create GitHub repositories for this class
 - Run our first R scripts and push them to Github
- Review the syllabus and course structure



Open R Studio

- Let's get started!

Syllabus & Course Website

- Course Website: <https://github.com/l-johnsonulrich/PSYCH705>
- View or download the syllabus: https://github.com/l-johnsonulrich/PSYCH705/blob/main/syllabus/PSY705_Syllabus_Fall2025.pdf

Wrapping Up

- Find on Github
 - Fully annotated demo with Markdown and Git cheatsheets
 - Completed example of the in-class practice
 - Template for Week 1 Homework (due Sunday night)
- Your repo should have:
 - Week1
 - Demo
 - inClass
 - homework (by next week)
- Any questions?