PSYCH 705 – Statistical Methods in Psychology

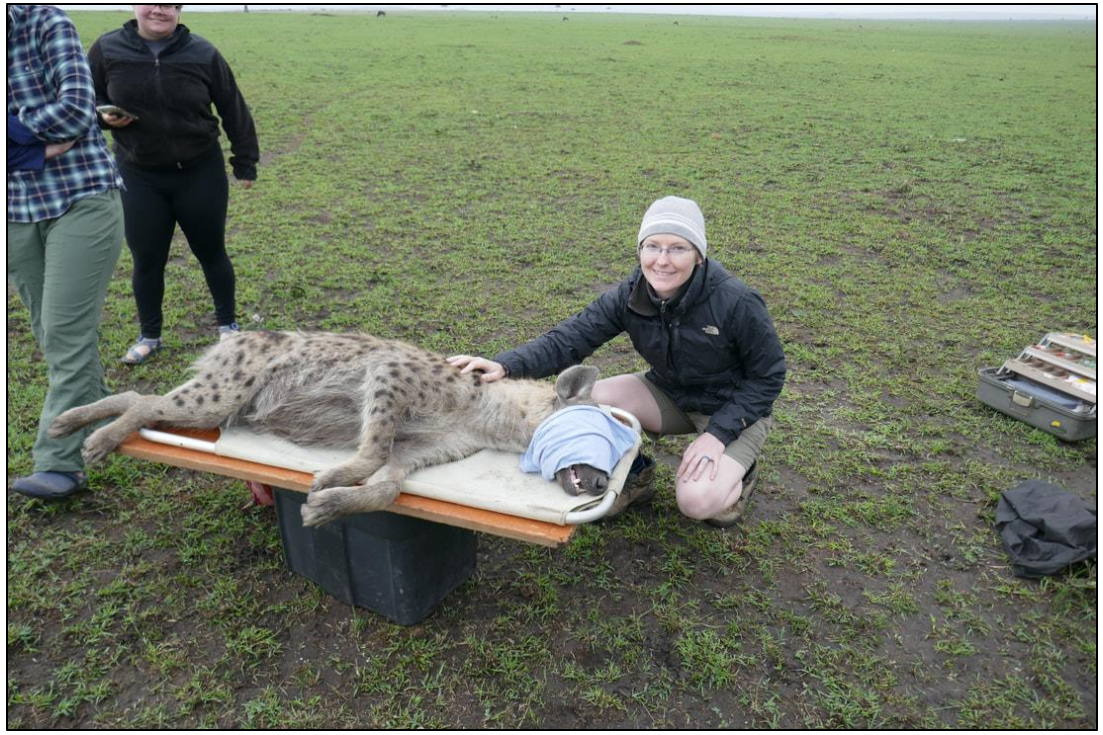
Tuesdays 5:30pm – 8:20pm

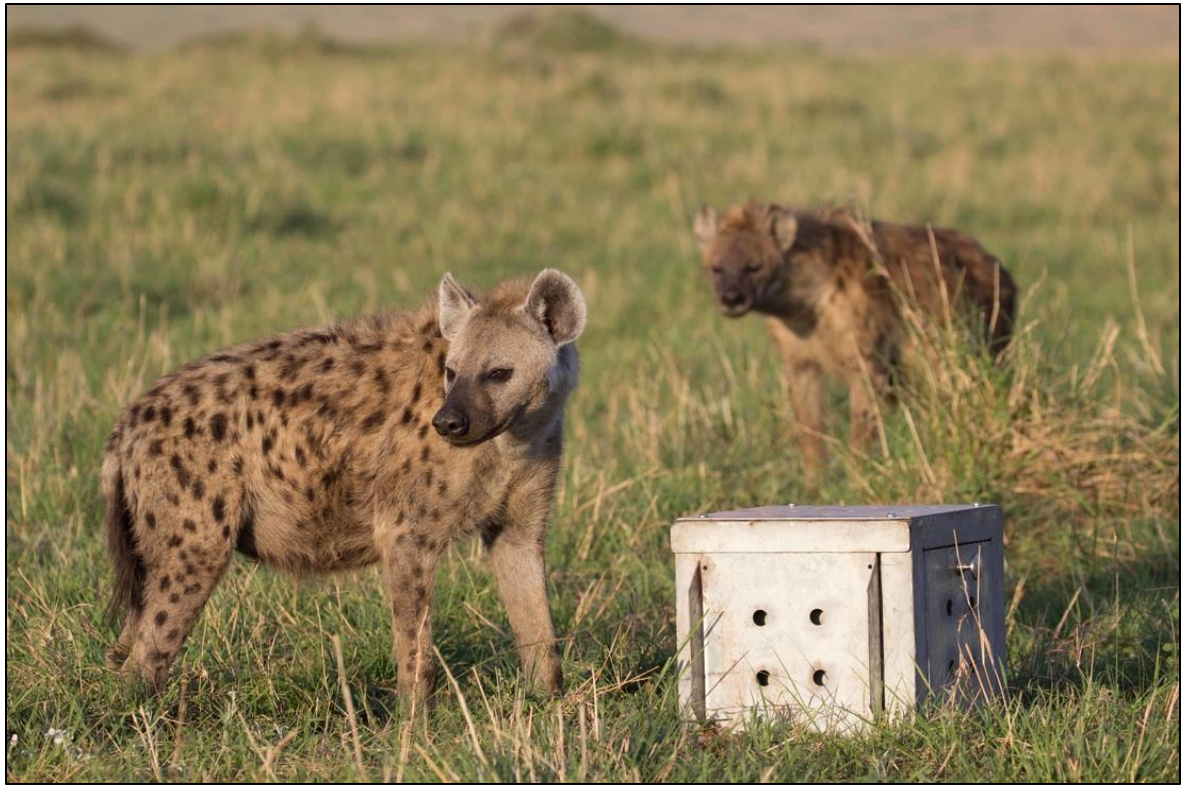
Dr Lily Johnson-Ulrich

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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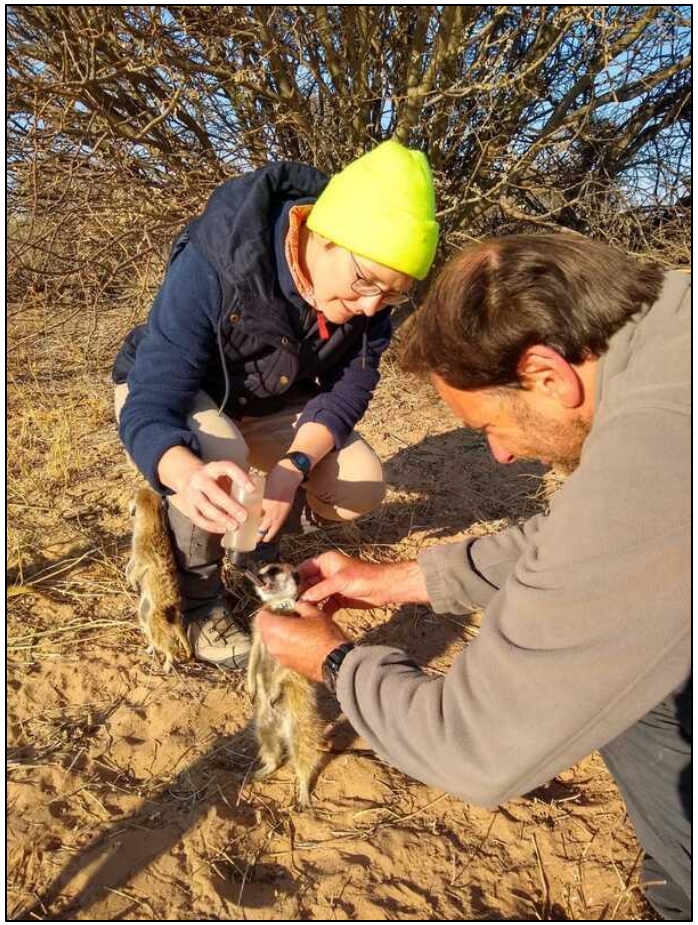

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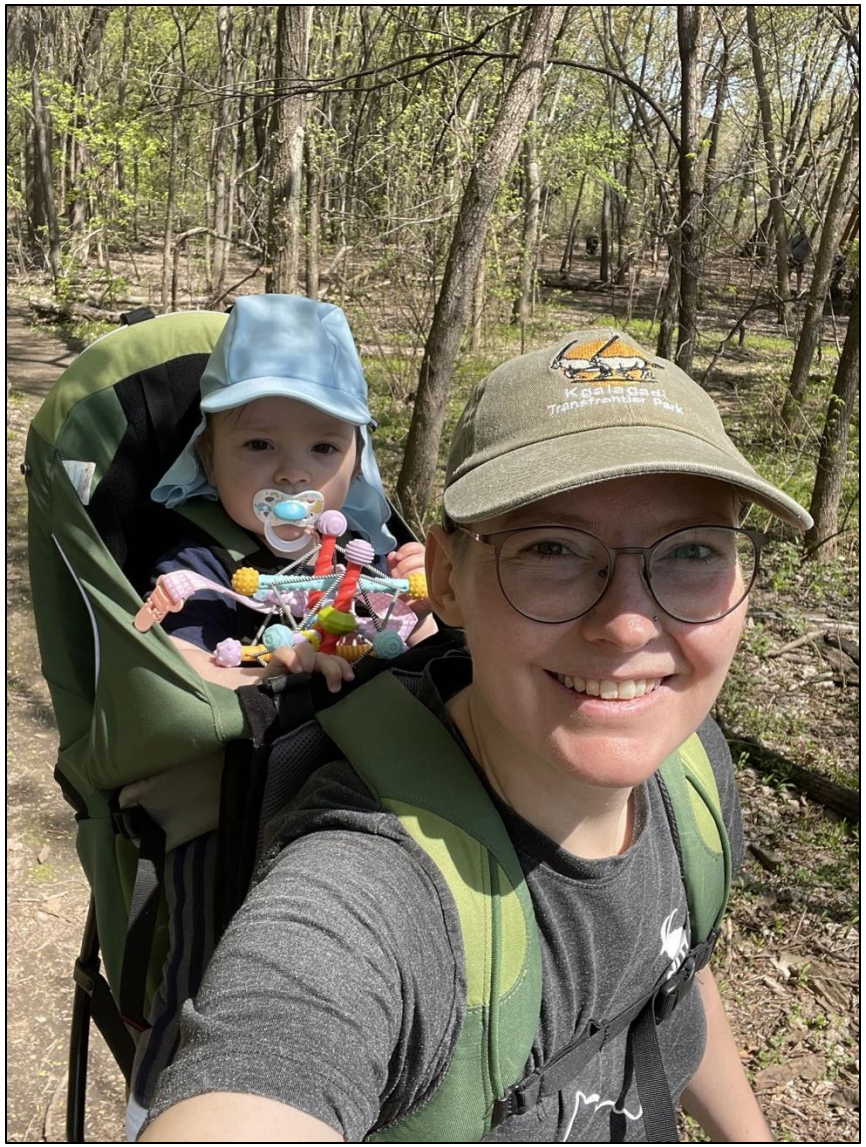

A little about you

- 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

- Review the syllabus and course structure
- Introduction to R
  - Navigate R Studio
  - Learn about R scripts and R markdown
  - Write basic R code

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

- Week 1 Learning Goals
  - Create R Markdown (.Rmd) files
  - Do basic coding in R
- Find these files on the course repo on GitHub.com:
  - Fully annotated demo with Markdown and Git cheat sheets
  - Completed example of the in-class practice
  - Template for Week 1 Homework (due Sunday night)
- Email me your classwork and homework files:
  - Lily.johnson-ulrich@hunter.cuny.edu

Next Week

- Introduction to GitHub
  - Create GitHub repositories for this class
  - Run our R scripts and push them to Github