

## Fall 2024 Schedule for Software Workshops

While we cannot pin down the exact time slot yet—late Friday morning would be a good bet—Kate has offered the following tentative schedule and topics:

### **Workshop 1 08/30 Excel: Introduction for Beginners**

- This is a true introduction, on data sheets, grid conventions, and basic data management functions. Those already familiar with the use of Excel as spreadsheet need not attend.

### **Workshop 2 09/06 Excel: Advanced Functions**

- This session covers the use of mathematical functions, solver, and other advanced uses.

MS-Excel is covered in the first two consecutive weeks of the fall semester to serve the need of the method courses, all sections of which expect students to know Excel not only as data management tool, but also as statistical, optimization, and information display tools.

### **Workshop 3 09/20 R: Part 1**

- RStudio overview
- Basics of using R in the console
- R scripts
- Functions

### **Workshop 4 10/04 R: Part 2**

- R Markdown
- Basic data types, vectors, and factors

### **Workshop 5 10/18 R: Part 3**

- Data frames
- Reading in CSV files
- Using packages

### **Workshop 6 10/25 or 11/08 R: Part 4**

- Tidyverse - mainly dplyr, readr, stringr, lubridate

### **Workshop 7 11/08 or 11/15 R: Part 5**

- Visualizations with ggplot2
- Linear regression

If you don't know R, the terms in this list are unlikely to mean much. That's okay. We strongly encourage you to attend all the R workshops, so you know the basics as you move into advanced courses or electives that require the use of R in future semesters.

Finally, Kate will hold office hours as instructor for software workshops. Her office hours will be announced later.