|  |  | Readings | Lecture | Quiz | Assignment |
|---|---|---|---|---|---|
| Week 1 |  |  |  |  |  |
| T | 27-Aug |  | Intro to the class, What is data, data structures |  | R and Rstudio refresher/ data structures |
| At Home |  | Broman and Woo (2017) | Collecting and recording data in a reproducible way, metadata |  | Making Data sheets for the field versus analysis |
| Week 2 |  |  |  |  |  |
| T | 3-Sep | Lowndes et al. 2017 (Nature Eco Evo) | What is reproducible research and why is it important? | 1 | Tools for reproducible research (Github) |
| At Home |  | R4DS Ch4, Ch6 | Reproducible scripts and workflow/importing data |  | Set up your file structure and make a script |
| Week 3 |  |  |  |  |  |
| T | 10-Sep | Healy Ch 1, R4DS Ch 3 | What makes a good visual? | 2 | Practice with ggplot |
| At Home |  | Wilke Ch 1-5 | Visuals part 2 |  | More ggplot |
| Week 4 |  |  |  |  |  |
| T | 17-Sep | R4DS Ch 5, Ch 11 | Data Wrangling part 1 (group_by, filter, select, summarise, mutate) | 3 | Practice with dplyr |
| At Home |  | R4DS Ch 12, 18 | Data Wrangling part 2 (tidyr - pivots, separate, unite) |  | Practice with tidyr |
| Week 5 |  |  |  |  |  |
| T | 24-Sep | R4DS Ch 13 | Relational data | 4 | Practice different types of joins |
| At Home |  | R4DS Ch 16 | Dates and times (lubridate) |  | Practice with dates and times |
| Week 6 |  |  |  |  |  |
| T | 1-Oct | R4DS 27,29 | Intro to Rmarkdown | 5 | Practice with Rmarkdown |
| At Home |  |  | Rmarkdown part II |  | Practice with Rmarkdown |
| Week 7 |  |  |  |  |  |
| T | 8-Oct | Wilke Ch 15, Healy Ch 7 | Working with spatial data and making maps | 6 | Make a map/ Good plot/Bad plot lab Directions |
| At Home |  |  | Working with spatial data and making maps part II |  |  |
| Week 8 |  |  |  |  |  |
| T | 15-Oct | R4DS 19 | Functional programing | 7 | Write a function |

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| At Home | | | Fun advanced plotting (gganimate, etc) | | |
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| T | 22-Oct | R4DS Ch 14,15 | Working with strings and regex | 8 | Final project proposal due |
| At Home | | | Working with factors | | Working with words |
| Week 9 | | | | | |
| T | 29-Oct | | **Goodplot/Badplot presentations** | 9 | |
| At Home | | | TidyTuesday Plot | | |
| Week 10 | | | | | |
| T | 5-Nov | | Election Day - No class Go Vote | | Work on independent project |
| At Home | | | TidyTuesday Plot | | |
| Week 11 | | | | | |
| T | 12-Nov | Mastering Shiny Ch1 | Intro Shiny apps | 10 | Shiny apps |
| At Home | | | TidyTuesday Plot | | |
| Week 12 | | | | | |
| T | 19-Nov | | How to ask for help (googling, stack overflow, and Reprex) | 11 | Make a reprex |
| At Home | | | TidyTuesday Plot | | |
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| T | 26-Nov | | Work on Independent Project | 12 | No in person class, Thanksgiving week |
| At Home | | | TidyTuesday Plot | | |
| Week 13 | | | | | |
| T | 3-Dec | R4DS Ch 21 | Iterative data (for loops and map functions) | 13 | Practice loops, etc |
| At Home | | | TidyTuesday Plot | | |
| Week 14 | | | | | |
| T | 10-Dec | | Models part 1 and 2 (many models with broom) - Final presentations (5 students) | 14 | practice with lots of models |
| At Home | | | TidyTuesday Plot | | |
| Week 15 | | | | | |
| T | 17-Dec | | **Final project presentations (10 students)** | 15 | **Final project presentations** |