

# Tentative Course Plan for STAT 412/612

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*2019-02-11*

- Week 1:
  - Chapters 1, 2, 4, 10, and 27 of [RDS](#)
  - Install all tools for the semester.
  - R in the context of Data Science.
  - Proper file system organization.
  - Basics of R
  - Basics of R Markdown
  - Data Frames
  - Logicals
- Week 2:
  - Chapters 6, 17, 18, and 19 of [RDS](#)
  - Using pipes ([magrittr](#))
  - Creating functions
  - R Scripts
- Week 3:
  - Chapter 3 of [RDS](#)
  - Data visualization and [ggplot2](#).
- Week 4:
  - Chapter 5 of [RDS](#)
  - Manipulating data frames.
  - Calculating summary statistics.
  - [dplyr](#)
- Week 5:
  - Chapters 7 and 11 of [RDS](#)
  - Data import/export.
  - Exploratory Data Analysis (EDA).
  - EDA exercise.
- Week 6:
  - Midterm exam covering weeks 1 through 4.
- Week 7:
  - Chapter 12 of [RDS](#)
  - Tidying data
  - [tidyr](#)
- Week 8:
  - Chapter 13 of [RDS](#)
  - Relational Data
  - SQL?
- Week 9:
  - Chapter 14 of [RDS](#)

- Strings and regular expressions
- Week 10:
  - Data munging lab.
- Week 11:
  - Midterm exam covering weeks 5, 7, 8, and 9.
- Week 12:
  - Chapters 15 and 16 of [RDS](#)
  - Factors (forcats)
  - Dates/Times (lubridate)
- Week 13:
  - [Git Appendix in r-pkgs](#)
  - [Happy git with R](#)
  - Git and GitHub.
- Week 14
  - TBD
  - Possible Topics: More Git and Github. Make your own website (personal/project) in R. Making presentations using R Markdown.
- Week 15
  - Project Presentations