1. What is R?
   1. Why R?
   2. Why RStudio?
2. Fundamentals of R
   1. Intro to RStudio >> open script
   2. Data structures
      1. Basic data types
      2. Vectors/matrices
      3. Data frames
   3. Subsetting/indexing (focus on these!!)
   4. Brief data I/O exercise
      1. Read in data
      2. Have 3 tasks for them to complete. Last one should not be doable without google.
      3. Which and %in% (use data set with some sort of outlier/leverage point)
3. Break?
4. EDA (with Prestige Data Set)
   1. Summary function
   2. Str function
   3. Plot plot plot
      1. Scatterplot matrices
      2. Histograms
      3. Boxplots
5. Linear Models
   1. Histograms then T-test with sim data
   2. T-test with prestige data
   3. Transition into linear regression
   4. Interpreting coefficients
   5. Test of significance (tie in with t-tests)
   6. Plotting the lm fit w/ smoother (maybe simulate a quadratic relationship to show polynomial fit)
   7. Diagnostics (make sim data with outlier so diagnostics actually useful)
6. Break
7. Exercise: linear regression with O-ring data
8. Logistic regression
   1. Intro to LogReg
   2. Intro to glm()
   3. Fit to o-ring data
   4. Predict() for temp on day of crash

O-Ring: only plotted failures (visualization problem)

<https://archive.ics.uci.edu/ml/datasets/Auto+MPG>

<https://archive.ics.uci.edu/ml/datasets/Challenger+USA+Space+Shuttle+O-Ring>

<https://www.stat.ubc.ca/~jenny/teach.html>