**Week 1, Day 1**

* Moodle
* Syllabus
* Introductions
  + Name, major, pronouns
  + When was your last Stats class?
  + Have you used R?
* Intro Stats Review: The Basics
  + The big picture
  + Fundamental Terms
    - Observational units (cases)
    - Response/outcome vs Explanatory/predictor variables
    - Sample vs. Population
    - Statistic vs. Parameter
    - Experiment vs. Observational study
    - Association vs. Causation
  + Variable types
    - Quantitative/numerical
    - Ordinal
    - Qualitative/categorical/binary
* Purpose of the class & 4-step Process:
  + **Choose** a form for the model. Identify response and explanatory variables and their types.
  + **Fit**that chosen model to the data. We do this by using R to estimate the appropriate model parameters based on the sample.
  + **Assess** how well the model describes the data.
    - Compare the model to other models
    - Is a transformation needed?
    - Are the model assumptions/conditions satisfied?
  + **Use** the model to answer the research question. Be careful to limit the scope of our conclusion appropriately.
* Additional notes:
  + Iteration/repetition of the 4 steps
  + “response/outcome” and “explanatory/predictor”;   
    ***never*** “dependent” and “independent”!
  + Ask: “How well does the model fit the data?”;   
    ***not*** “How well does the data fit the model?”
* R and RStudio
  + Use of R in course
  + Station 1 – Get ready to use R   
    How to access RStudio server, load data, load packages, and knit an .Rmd file

For Tuesday:

* Questionnaires: Frazier’s office hours & Getting to Know You
* Read Chapter 0
* Station 1 (for those without R background)
* Review Intro Stats as needed