Agenda: MST 6600 January 10th, 2018

Why I think learning R/RStudio is important (<10 minutes)
Review the following items as a group:

1) Expectations for completing online assignments. (30 minutes)
    a) My personal philosophy
        i) Teacher, Coach, Mentor
        ii) Skill level: Beginner, "Hack," Expert
    b) Time commitment
        i) "3 hours" of course time -> 6-9 hours outside of class (2 to 3 hours per credit hour).
            (1) My goal is to move the lecture online (20 to 50 minutes)
            (2) Scheduled class time will be approximately 2 hours; the third hour will be available as a working session to follow up on specific problems.
        ii) Task based assignments (5 to 100 points)
    c) Syllabus review
    d) Exams — none.
    e) Quizzes — weekly, online (based on the readings)
    f) Resources
        i) NIST Engineering and Statistics Handbook
            (1) PDF: http://www.itl.nist.gov/div898/handbook/toolaids/pff/index.htm
            (2) Data and code: http://www.itl.nist.gov/div898/handbook/dataplot.htm
        ii) R for Data Science ($18) or FREE at:
            (1) http://r4ds.had.co.nz/
                (a) Exercise Solutions and Notes for "R for Data Science" (Jeffrey B. Arnold)
                    (i) https://jrnold.github.io/e4qf/
        iii) Stackoverflow.com (example)
            (1) https://stackoverflow.com/questions/3744178/ggplot2-sorting-a-plot
        iv) Recommended
            (1) Book: ggplot2: Elegant Graphics for Data Analysis ($42)
            (2) R Graphics Cookbook ($33 / $18)
2) Walk through the Introduction Module tasks. (20 minutes)
    a) Videos (me or others from the web)
    b) Readings (some will be heavy, but the goal is to gain enough insight to do real work — not to become a statistician).
        i) NIST handbook will often work through a simple problem "by hand."
        ii) R for Data Science is focused on the output.
    c) Exercises (Output from analysis as PowerPoint or PDF.) If your struggling, reach out to me or work in groups. Learning analysis is a command based environment is by "doing." At the beginning, it will be reproducing what others have done and tweaking; then you'll start applying to new problems and then you'll be come a user!
3) (Break 10 minutes)
4) Live demo of "First Plots using R! (exercise)" (45 minutes)
5) Review "parking lot" items (15 minutes)

Meeting outcomes:

1. Everyone is aware of the class structure (hybrid, flipped, etc.) and requirements.
2. RStudio is installed and enough information is available to complete the homework assignments.