STAT 270 Lecture 6
Spring 2015
21 September 2015

- Reminder about the midterm Friday 25 Sept in class. It is closed book but you are allowed a calculator, *not a web enabled device* and particularly *not your phone or computer*. You are allowed 1 sheet of notes, handwritten or typed/printed, and you can write on both sides. No limits to font size. It covers to the end of Wednesday's (Sept 23) material; I expect to have finished to the end of 3.4 and maybe started 3.5.

- We covered to the end of slide 18 of 'Probability'.

- Read all of Chapter 3 now. Make sure you can do problems up to the end of section 3.4 material.

- I have done section 3.2 essentially and will finish to the end of 3.4 next time.

- Handwritten slides.

- Key jargon, ideas:

    - Defined *event, empty event, union, intersection, complement, pairwise disjoint, mutually exclusive*.
    - I emphasized the importance of saying the same thing in several ways.
    - I defined the axioms of probability:
        1. $P(A) \geq 0$ for every event A.
        2. $P(\mathcal{S}) = 1$.
        3. For mutually exclusive $A_1, A_2, \ldots$
        $$P(\cup_i A_i) = \sum_i P(A_i).$$
    - I listed various important formualas:
        $$P(A) + P(bar A) = 1$$
        $$P(A \cup B) = P(A) + P(B) - P(AB)$$
    and some generalizations.