STAT 270 Lecture 18
Fall 2015
21 October 2015

- I covered up to slide 11 of "Continuous distributions".

- Problems from the text: 5.09, 5.10, 5.11, 5.12, 5.51 c.

- I defined expected values and variances of continuous distributions.

- I did the Uniform$[a, b]$ example.

- I defined the standard normal distribution.

- We have covered up to the first bit of Section 5.2 in the text.

- Handwritten slides.

- Key jargon, ideas:

    - If X has density f then

    $$\mathrm{E}(X) = \int_{-\infty}^{\infty} x f(x)\,dx.$$

    - Also
    $$\mathrm{E}(g(X)) = \int_{-\infty}^{\infty} g(x) f(x)\,dx.$$

    - Remember the uniform distribution.

    - The standard normal density is

    $$f(x) = \frac{1}{\sqrt{2\pi}} e^{-x^2/2}.$$