## STAT 485/685 Lecture 4 Fall 2017 18 September 2017

- I began by discussing the bivariate normal distribution, means, variances, and covariances. I did that only with a sketch of a graph.
- Along the way I spoke about Karl Pearson and his interest in eugenics.
- Then I introduced the idea of a trend: a non-constant mean function.
- I talked about linear, quadratic, and periodic trends.
- For a series with a constant mean I suggested using the sample mean as an estimate and proved it was unbiased.
- I computed the variance of the sample mean for a stationary series.
- In the text I have started Chapter 3.
- You should be Reading all of Chapters 1, 2, and 3.
- Next class I will continue with trends and their estimation.
- Handwritten slides.