

Math 2210 honors (spring 2011) synopsis.

The course will cover all of the topics taught in the non-honors sections of Math 2210 (descriptive statistics, basic facts about probability and probability distributions, statistical testing, basic regression analysis, and goodness of fit tests).

In addition, the course will integrate readings from Fooled by Randomness by Nassim Taleb and The Lady Tasting Tea by David Salsburg.

The latter chronicles through a series of short vignettes the evolution of the use of statistics in the sciences. The title is derived from a story involving the famous statistician R.A. Fisher. It seems he was once at a party where one of the guests claimed to be able to distinguish by taste whether milk had been poured into her tea or the tea was added to the milk. He proposed a scientific way to test this claim and the basic framework of this test is still used by researchers every day.

Nassim Taleb has gained exposure for predicting the recent meltdown of the financial sector, and more significantly, by predicting exactly why the crisis would occur. He points out how most humans perceive the world to be far less random than it actually is, fail to identify bias in their thinking, and are generally far too confident in the quality of their “knowledge”.