1 Lecture 1:Aug 22

Today

- Introduction
- Introduce yourself
- Course logistics

What is this course about?

This course will provide a calculus-based introduction to probability theory. Material covered will include fundamental axioms of probability, combinatorics, discrete and continuous random variables, multivariate distributions, expectation, and limit theorems, generally following Chapters 1-5 of the textbook. This course is a critical prerequisite for more advanced work in statistical theory and analysis.

Prerequisite

- Calculus

Why learn probability

- The subject of probability theory is the foundation upon which all of statistics is built.
- It provides you a tool to model
  - populations
  - experiments
  - almost anything else that could be considered a random phenomenon
  - example topics in Data Analysis course
- Through these models, statisticians are able to draw inferences about populations based on examination of only a part of the whole.
- A must have for any Data Scientists.

What this course WILL NOT do for you

It will not help you:

- Beat the casino at blackjack (although it may convince you that it is better not to gamble, or that a casino is a great business).
- Answer your friends' silly questions such as "What are the chances it will rain tomorrow?" (although it might make you think of ways that you might model and compute it).

Syllabus

Check course website frequently for updates and announcements.

https://tulane-math-3070-2022.github.io/

HW submission

Students are required to submit hand-written homework in recitations to the TA. Homework assignments are expected every two weeks with 4-5 problems at a time.

Presentations

Do we want to have a 5 bonus point towards the final grade with a presentation?

Last year comments

Not really, this is my first time teaching this course. There will be an internal mid-term-ish evaluation for this course. Will remember to go over them.