# Stat 400 / Math 463

## Statistics and Probability I
## Spring 2021

Albert Yu

# Topics for 1/26/21

- Introduction

- Course Objectives

- Course Structure / Syllabus

- Properties of Probability

# Part 1: Probability

- Properties
- Conditional Probability / Independence
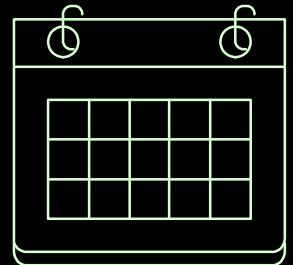- Bayes' Theorem

# Part 2: Distributions

- Random Variables

- Discrete Distributions
- Continuous Distributions
- Bivariate Distributions
- Conditional Distributions
- Transformations of Normal Random Variables
- Moment Generating Functions
- Central Limit Theorem

# Part 3: Statistics (Estimation and Hypothesis Testing)

- Point Estimation
- Interval Estimation
- Statistical Tests

# IMPORTANT DATES

- Midterm 1: Thurs Feb 25 - 7:00pm

- Midterm 2: Thurs Mar 18 -  7:00pm

- Midterm 3: Thurs Apr 15 - 7:00pm

- Final Exam: TBD

# Hw 0 (do before Thursday)

1. Download and Install R
   - http://ftp.ussg.iu.edu/CRAN/

2. Download and Install RStudio
   - https://rstudio.com/products/rstudio/download/