# BSTA621 Statistical Inference I 2022 Spring

### **Content:**

This class will cover the fundamental concepts and results of statistical inference. We will focus on Chapter 6-9 of Casella and Berger. In particular, we will cover the following topics: data reduction, point estimation, hypothesis testing and interval estimation. The expectation is that you will be able to use the concepts and techniques you learn in this class to solve some new problems that you may not have seen in class. We will go over some of the homework problems from previous years in class.

**Prerequisites:** BSTA620

#### **Instructor**

Wensheng Guo/Elizabeth, Sweeney 613 Blockley Hall wguo@mail.med.upenn.edu Elizabeth.Sweeney@Pennmedicine.upenn.edu Office Hours: by appointment

**TA:** Amelia Schroeder (office hour, one hour per week).

### **Class Schedule:**

Tues and Thur 10:15-11:45pm Online

### **Testbooks:**

- 1. Statistical inference, 2<sup>nd</sup> edition, by Casella and Berger. (required).
- 2. *Theoretical Statistics*, by Cox and Hinkley (reference)

## **Grading:**

Homework: 20%

Midterm: 40% (covers the first half of the semester)

Final exam: 40% (covers the materials for the whole semester)

Note: you are encouraged to discuss your homework among classmates, but each should write up his/her own assignments. Both exams are open-book and take-home.