

Design of Scientific Studies

(STA305H1S/1004HS - L0101 & L0201)

Winter 2020

Tentative Course Schedule

Week	Topics	Important Dates
1. Jan. 6-10	Introduction, review of mathematical statistics	
2. Jan 13-17	Comparing two groups via the randomization distribution	<i>Jan 19 – Last day to add S courses</i>
3. Jan 20-24	Power and sample size	
4. Jan 27-31	Power via simulation Introduction to causal inference in randomized experiments	
5. Feb 3-7	Design of observational studies and propensity scores	Assignment 1: Feb. 4, 22:00
6. Feb 10-14	ANOVA - Comparing more than two groups	
Feb 17-21	Reading Week – No classes	
7. Feb 24-28	Review class, MIDTERM TEST	[L01] Feb. 26, 11:10 – 12:40 [L02] Feb. 27, 15:10 – 16:40
8. Mar 2- 6	ANOVA - Comparing more than two groups, multiple comparisons	
9. Mar 9-13	ANOVA - Comparing more than two groups, multiple comparisons	<i>March 15- Last day to drop S courses</i>
10. Mar 16-20	Factorial designs at two levels	
11. Mar 23-27	Randomized block designs, Latin Squares, Balanced Incomplete Block Designs	
12. Mar 30-Apr 3	Blocking in factorial designs, fractional factorial designs. Restricted randomization and split-plot designs.	Assignment 2: Mar. 30, 22:00